

## Taxonomic Revision of the Genus *Sesioctonus* Viereck (Hymenoptera: Braconidae: Agathidinae)

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*Abstract.*—The Neotropical genus *Sesioctonus* Viereck and its type species *S. parathyridis* Viereck, are redescribed. Descriptions for twenty-six new species are presented: *S. acroloplus*, *S. amazonensis*, *S. ammosakron*, *S. analogus*, *S. areolatus*, *S. ariasi*, *S. armandoi*, *S. biospleres*, *S. boliwiensis*, *S. brasiliensis*, *S. chaconi*, *S. chrestos*, *S. clavijoi*, *S. diazi*, *S. dichromus*, *S. dominicus*, *S. eumenetes*, *S. galeos*, *S. garciai*, *S. grandis*, *S. kompsos*, *S. miyayensis*, *S. peruviensis*, *S. qui*, *S. theskelos*, and *S. venezuelensis*. Seventy-six morphological and color characters are discussed. A key to species is presented.

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*Sesioctonus* Viereck 1912 is a Neotropical genus of the subfamily Agathidinae that, together with the genus *Eariinus* Wesmael, comprise the tribe Earinini (Sharkey 1992). Viereck proposed *Sesioctonus* for the unique species described so far: *Sesioctonus parathyridis* Viereck.

The main characters that diagnose *Sesioctonus* are: tarsal claws simple, and notauli absent (Viereck 1912; Sharkey 1997). Many members of *Sesioctonus* have showy color patterns with body size varying between 3.0–12.0 mm. Despite the vivid color patterns and relatively large size, this genus is poorly represented in insect collections, and there is little biological information. Most species of *Sesioctonus* have been collected from November until March and between 100–2000 meters above sea level. Almost all specimens were collected in Malaise traps.

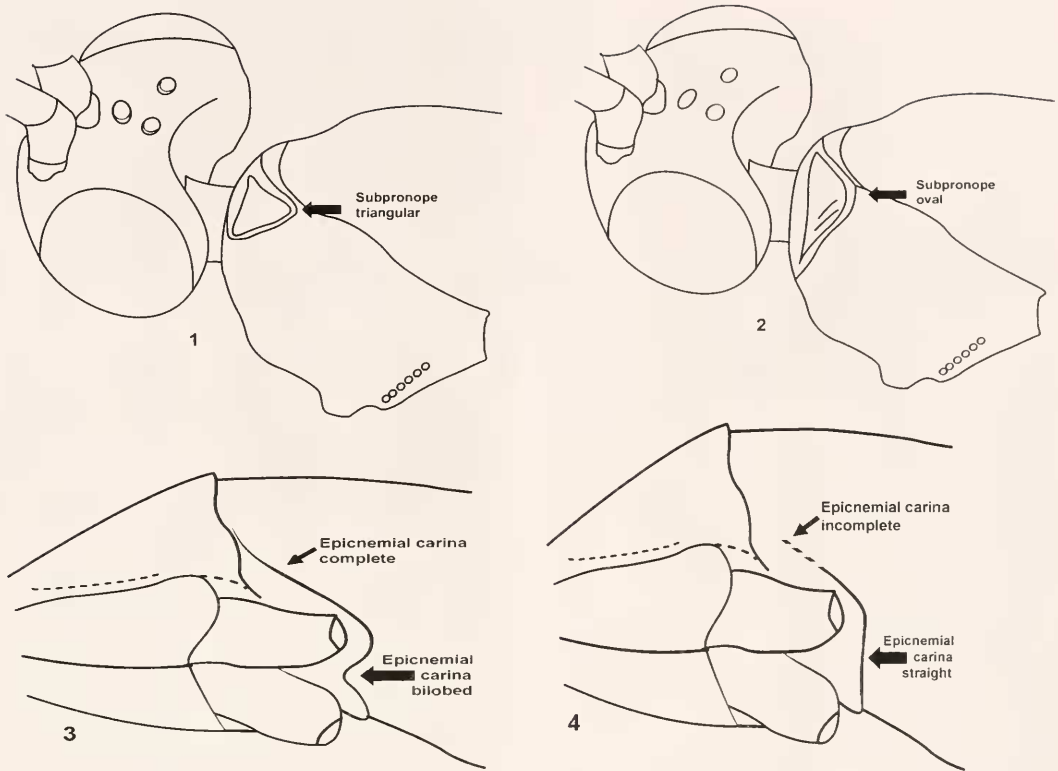
All known agathidines are parasitoids of Lepidoptera larvae (Sharkey 1988, 1997). The only previously known species of *Sesioctonus*, *S. parathyridis*, is recorded as a larval parasitoid of *Parathyris perspicilla* Stall (Lepidoptera: Arctiidae), although precise biology data (life cycle) are

not known (Viereck 1912, 1914). Sharkey (1997) estimated that this genus might include about thirty species and this revision includes a total of twenty-seven species.

### MATERIALS AND METHODS

Specimens are deposited in the following collections:

- AEI: American Entomological Institute, Gainesville, FL, USA.
- BMNH: The Natural History Museum, London, England.
- CNC: Canadian National Collection, Biosystematics Research Centre, Agriculture Canada, Ottawa, Ontario, Canada.
- CUIC: Cornell University Insect Collection, Department of Entomology, Cornell University, Ithaca, NY, USA.
- FML: Fundación Miguel Lillo, Instituto de Zoología Miguel Lillo, Tucumán, Argentina.
- INBio: Instituto de Biodiversidad, Santo Domingo, Heredia, Costa Rica.
- INPA: Instituto Nacional de Pesquisas da Amazônia, Depto. de Ecologia e Biologia Evolutiva, Universida-



Figs. 1-4. 1, Subpronope triangular in dorso-lateral view. 2, Subpronope oval-shaped in dorso-lateral view. 3-4, Epicnemial carinae. 3, Complete and bilobed. 4, Incomplete and straight.

de Federal de São Carlos, São Carlos, SP. Brasil.

MIZA: Museo del Instituto de Zoología Agrícola "Francisco Fernández Yépez", Universidad Central de Venezuela, Maracay, Aragua. Venezuela.

MZLU: Museum of Zoology, Lund University, Sweden.

TMB: Természettudományi Múzeum, Budapest. Hungary.

UCOB: Museo Entomológico "José M. Osorio", Universidad Centroccidental "Lisandro Alvarado", Tarabana, Lara. Venezuela.

UCR: Universidad de Costa Rica, San José. Costa Rica.

UK: Department of Entomology, University of Kentucky, KY. USA.

USNM: United States National Museum,

Smithsonian Institution, Washington, D. C. USA.

UWY: U. W. Insect Museum, University of Wyoming, Laramie, WY. USA.

ZSBS: Zoologische Sammlungen des Bayerischen Staates, Munich, Germany.

The revision was carried out at MIZA at the Universidad Central de Venezuela in Maracay, Venezuela.

Several morphometric characters were used in the descriptions and key. Measurements of *Body length* (mm) do not include the ovipositor. *Hind femur length and width* (Fig. 5) were measured in lateral view, with the length taken from the distal end of the trochantellus to the apex of the femur. The maximum width was measured, which is always near the midpoint. *First metasomal tergite length and width re-*

relationship (Fig. 7) refers to the median tergite with the length taken along the midline and the width measured at the apex. *Ovipositor length* (mm) was measured from the base of the hypopygium. In the description a measurement in parentheses following a range belongs to the holotype.

The terminology used for the carinae and areolae of the metanotum and propodeum follows Sharkey (1988), and the rest of the terminology, including wing venation follows Sharkey and Wharton et al. (1997). Additional terms used in this revision include the *occipital tubercles*, a pair of projections, one at each side of the occipital medial line (Figs. 16–18); and the *median areola of the metanotum*, which is the central area of metanotum often bordered with carinae (Figs. 25–29).

The key to *Sesioctonus* species was generated with the software DELTA version 4.07 (Dallwitz et al. 1997). Seventy six meristic, morphological and color characters were used for the matrix. The species descriptions also were generated with this software.

The biology for all the species described is unknown.

## RESULTS AND DISCUSSION

*Diversity and distribution of Sesioctonus.*—The genus is distributed from Southern Mexico to Southern Brazil. Members of *Sesioctonus* are poorly represented in entomological collections but most of these have been collected in Malaise traps in tropical localities between 0 and 1500 meters above sea level. Only *S. arcolatus*, has been collected above 2000 meters, specifically at the Estación Biológica Las Alturas, in Costa Rica.

The poor collecting in many regions of the Neotropics may explain the scarcity of this genus in collections. This is clearly shown by the numerous specimens from Costa Rica and Panama where collecting has been extensive in recent years.

*Color patterns.*—Color patterns (yellow and black) shown by many braconids, in-

cluding *Sesioctonus*, are frequently shared with other orders of insects, specially Coleoptera and Hemiptera. However, some Lepidoptera, Neuroptera and Diptera also exhibit (Quicke 1997) these color patterns. Certainly, specimens of *Sesioctonus* could be confused with specimens of some of these groups when they are observed in nature, but the existence of a large mimetic complex has not yet been conclusively demonstrated. At taxonomic level, the various combination of yellow, orange, and black colors on the body of wasps are important characters for the separation of species.

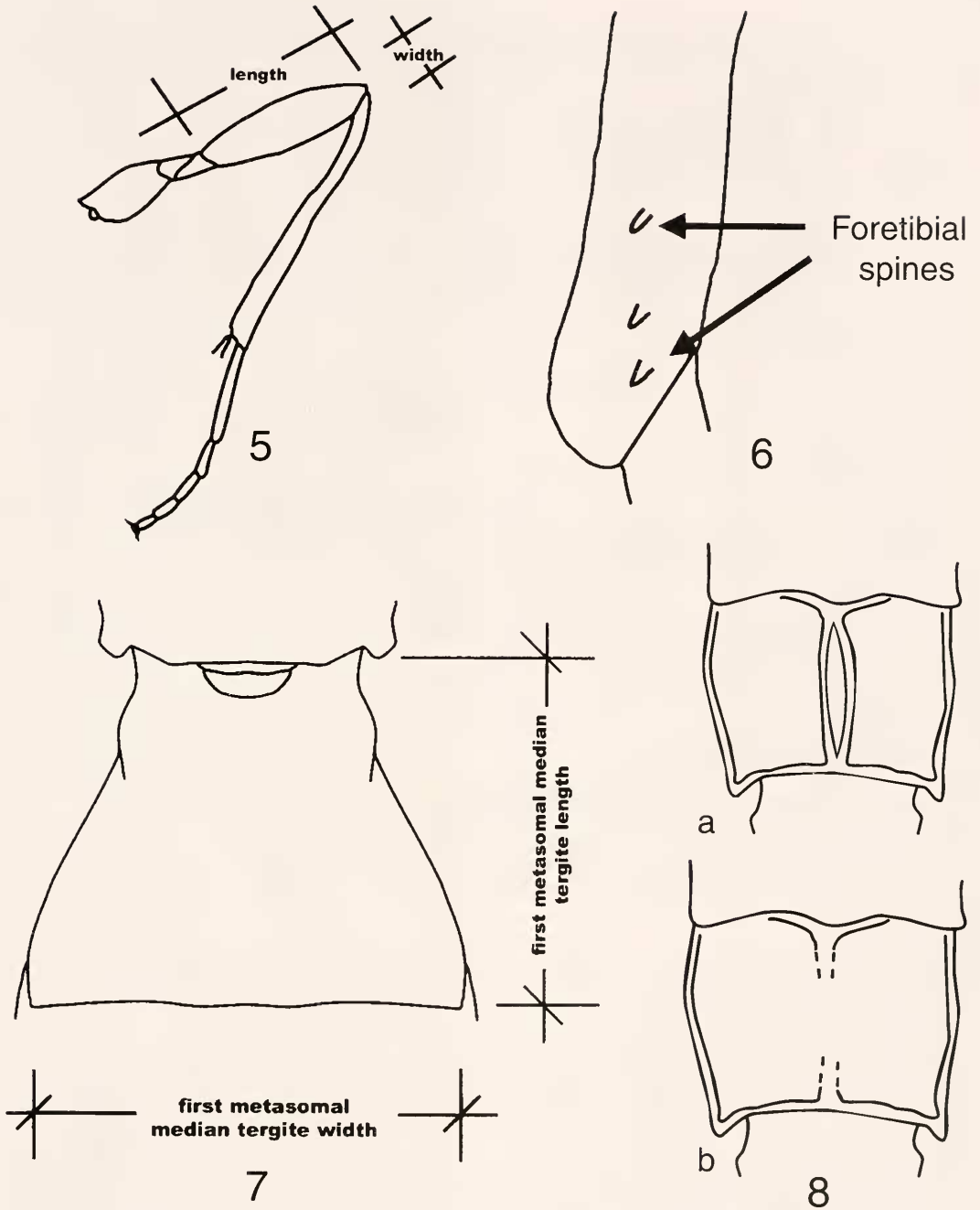
*Wing color pattern.*—The color pattern of the wings seems to be related to geographical distribution. Most species from South America have the wings banded from the base: yellow, infuscate, yellow, infuscate; while most species from Central America have the wings entirely infuscate. Another curious fact is that the only species from an island (*S. dominicus*) has hyaline wings. These observations could suggest that there are mimetic relationships with other insects on the continent, or perhaps the presence of a sham aposematic behavior, which was not present in the island.

### Genus *Sesioctonus* Viereck

*Sesioctonus* Viereck 1912:1. Type species: *Sesioctonus parathyridis* Viereck. (Monobasic and original designation). Viereck 1914: 133.

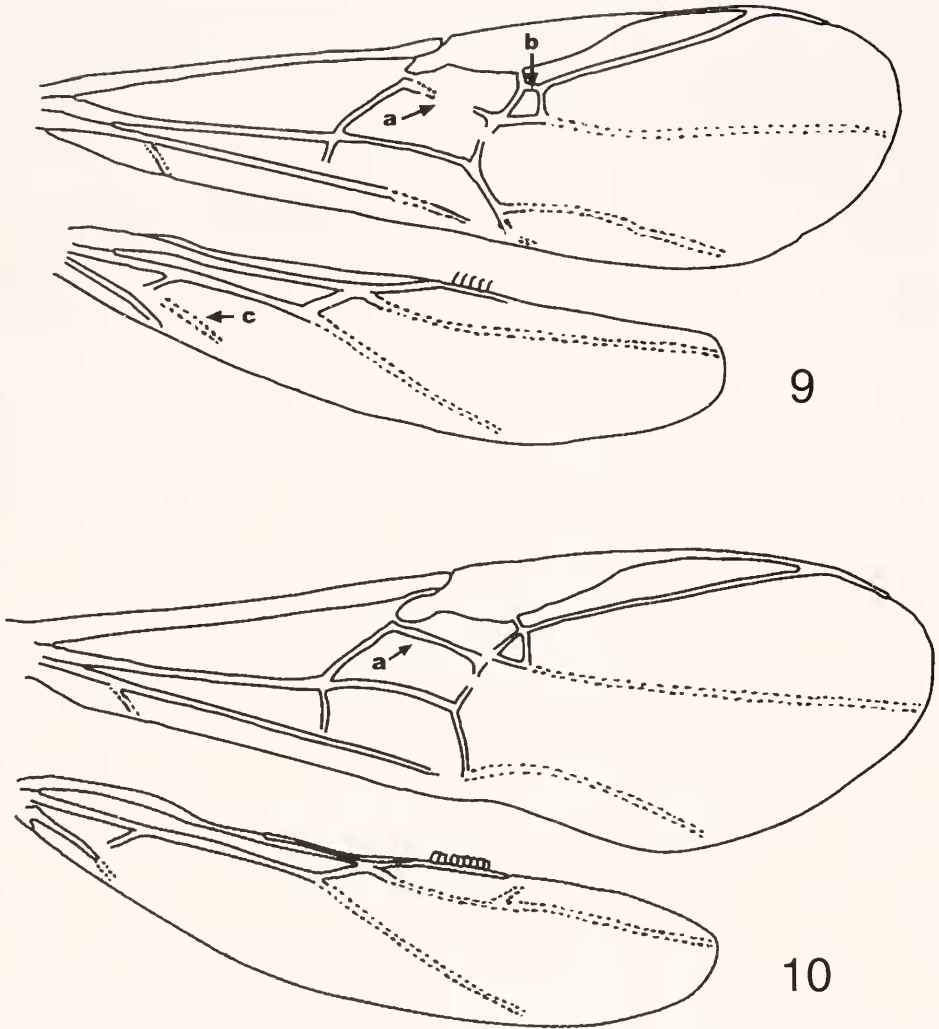
*Diagnosis.*—*Sesioctonus* species may be distinguished from other agathidines using the following combination of characters: Body smooth and bright, lacking sculpture, scutellar depression smooth, notauli absent, tarsal claws simple (Fig. 32), epicnemial carina bilobed between fore coxae; rarely (8%) straight, ovipositor about as long as body length.

*Description.*—*Head:* Antenna with 23–48 flagellomeres, usually with 28–35; interantennal space with distinct keel (14%), or flat without distinct keel; antennal sockets



Figs. 5-8. 5, Hing legs of Braconidae (Wharton et al. 1997) showing measurements done. 6, Apex of foretibia with spines. 7, First metasomal median tergite showing measurements done. 8, Propodeum, a, with central areola; b, without areola.





Figs. 9-10. Venation in *Sesioctonus*. 9, Forewing, a, (RS+M)a vein incomplete; b, 3Rsa vein, hind wing; c, Cub vein not tubular. 10, Forewing, a, (RS+M)a vein complete.

excavated (51%); face rarely with longitudinal median carina; mandibles with two teeth, usually the outer tooth as long as the inner; maxillary palpus with four or five segments; labial palpus with three or four segments; third segment of labial palpus, when present, shorter and partially fused to fourth segment; gena usually moderately expanded posteroventrally (37%), sometimes not expanded; occipital tubercles often present (51%); occiput usually excavated. *Mesosoma*: Smooth and bright, without sculpture; subpronope tri-

angle-shape or oval-shape; notauli always absent; scutellum generally convex in lateral view, rarely flat; lateral carina of the scutellar depression usually absent; median areola of the metanotum often with longitudinal carina and lateral carinae that join posteriorly or not, generally smooth, sometimes with small rugosities; propodeum convex (49%) or flat (51%) in lateral view; longitudinal carina of propodeum usually absent, sometimes present; epicnemial carina absent (6%) or present (94%), complete (70%) or incomplete lat-

erally (24%), generally bilobed medially between fore coxae, sometimes straight; hind coxal cavities open, forming a common foramen with the metasoma; fore wing (RS+M)a vein present, complete (57%) or incomplete (43%); fore wing 3RSa usually present; hind wing with 3–10 hamuli, generally 4–6; hind wing 2-1A vein usually tubular; hind wing CUb vein not tubular; fore tibia sometimes with

spines; medial tibia usually with 2–16 spines; hind tibia with 5–25 spines, usually 12–17; tarsal claws simple on all legs. *Metasoma*: Smooth and bright, without sculpture; median tergite of the first metasomal segment usually with two longitudinal dorsal carinae, rarely with pits posterad spiracle; ovipositor as long as length of the body. Length. 2.0–12.0mm; excluding ovipositor.

KEY TO SPECIES OF *SESIOTONUS*

- 1 Occipital tubercles present (Figs. 16–18) ..... 2
- Occipital tubercles absent (Figs. 19) ..... 13
- 2(1) Epicnemial carina straight medially or absent (indented at midline, between forecoxae), sometimes difficult to see (Figs. 4, 23) ..... 3
- Epicnemial carina bilobed medially, (indented at midline, between the forecoxae) (Figs. 3, 22) ..... 5
- 3(2) Epicnemial carina complete in lateral view (Figs. 3, 22) ..... *garciai* sp. n.
- Epicnemial carina incomplete or absent in lateral view (Fig. 23) ..... 4
- 4(3) Face with median longitudinal carina (Fig. 13) ..... *acrolophus* sp. n.
- Face without median longitudinal carina (similar to Figs. 12, 14) ..... *analogus* sp. n.
- 5(2) Midcoxa not completely melanic, color variable ..... 6
- Midcoxa completely melanic ..... 7
- 6(5) Fore tibia with spines (Figs. 6, 30), midcoxa yellowish orange, forewing (RS+M)a vein complete (Fig. 10a) and 3RSa vein present (Fig. 9b) ..... *peruviensis* sp. n.
- Fore tibia without spines, midcoxa melanic dorsally and yellowish orange ventrally, forewing (RS+M)a vein complete (Fig. 10a) and 3RSa vein absent (Fig. 10) ..... *chaconi* sp. n.
- 7(5) Longitudinal carina of scutellar depression present ..... *venezuelensis* sp. n.
- Longitudinal carina of scutellar depression absent ..... 8
- 8(7) Median areola of metanotum with longitudinal rugosities (Fig. 29), median tergite of first metasomal segment without pair of lateral longitudinal carinae (similar to Fig. 34), fore wing (RS+M)a vein complete (Fig. 10a) ..... *kompsos* sp. n.
- Median areola of metanotum smooth (Figs. 25–28) ..... 9
- 9(8) Mesoscutum melanic ..... 10
- Mesoscutum yellowish orange ..... 11
- 10(9) Fore wing infusate with large hyaline spot, metasoma reddish brown ..... *brasiliensis* sp. n.
- Fore wing either infusate without hyaline spot or hyaline basally, infusate apically, mesosoma melanic and metasoma yellowish orange ..... *dichromus* sp. n.
- 11(9) Median longitudinal carina of propodeum present and complete ..... *ariasi* sp. n.
- Median longitudinal carina of propodeum absent or incomplete ..... 12
- 12(11) Subpronope triangular (Fig. 1), fore wing 3RSa vein absent (Fig. 10) .. *boliviensis* sp. n.
- Subpronope oval-shape (Fig. 2), fore wing 3RSa vein present (Fig. 9) ..... *diazi* sp. n.

13(1)	Occiput excavated (similar to Figs. 16–18) .....	<i>enmenetes</i> sp. n.	14
–	Occiput not excavated (Fig. 19) .....		
14(13)	Median areola of metanotum with lateral carinae (Figs. 25–28), flagellum with less than 40 flagellomeres, interantennal space with a rounded longitudinal keel or keel absent (Fig. 12), never sharp; specimens with less than 8mm in body length .....		15
–	Median areola of metanotum without sharp lateral carinae (Fig. 29), flagellum with 40 flagellomeres or more, interantennal space with a sharp longitudinal keel (Fig. 11), specimens greater than 8mm in body length .....		25
15(14)	Median areola of metanotum with lateral carinae present and meeting posteriorly (Figs. 25, 26) .....		16
–	Median areola of metanotum with lateral carinae present and not meeting posteriorly (Figs. 27, 28) .....		23
16(15)	Epicnemial carina present (Figs. 3, 4) .....		17
–	Epicnemial carina completely absent .....	<i>ammosakron</i> sp. n.	
17(16)	Epicnemial carina complete laterally (Fig. 3) .....		18
–	Epicnemial carina incomplete laterally (Fig. 4) .....		21
18(17)	Hind tibia melanic .....	<i>amazonensis</i> sp. n.	19
–	Hind tibia mostly yellowish orange .....		
19(18)	Propodeum with central areola absent .....		20
–	Propodeum with central areola present (Fig. 8a) .....	<i>areolatus</i> sp. n.	
20(19)	Flagellum with 32 flagellomeres, interantennal space with rounded longitudinal keel (similar to Fig. 12), hind tibia yellowish orange in basal half, melanic apically .....	<i>miyayensis</i> sp. n.	
–	Flagellum with 25 flagellomeres, interantennal space without longitudinal keel, hind tibia mostly yellowish orange, melanic apically .....	<i>clavijoi</i> sp. n.	
21(17)	Epicnemial carina straight medially (between forecoxae) (Fig. 4), body length less than 3mm .....	<i>dominicus</i> sp. n.	
–	Epicnemial carina bilobed medially (indented at midline, between forecoxae) (Fig. 3), body length more than 3mm .....		22
22(21)	Forewing (RS+M)a vein complete (Fig. 10a) .....	<i>armandoi</i> sp. n.	
–	Forewing (RS+M)a vein incomplete (Fig. 9a) .....	<i>biospleres</i> sp. n.	
23(15)	Epicnemial carina present, complete or incomplete laterally (Figs. 3, 4) .....		24
–	Epicnemial carina completely absent .....	<i>chrestos</i> sp. n.	
24(23)	Epicnemial carina straight medially (indented at midline, between forecoxae) (Fig. 4) .....	<i>galeos</i> sp. n.	
–	Epicnemial carina bilobed medially (indented at midline, between forecoxae) (Fig. 3) .....	<i>theskelos</i> sp. n.	
25(14)	Third and fourth labial palpomeres not fused, first metasomal median tergite with depression posterad spiracle (Figs. 36, 37) .....	<i>grandis</i> sp. n.	
–	Third and fourth labial palpomeres fused, first metasomal median tergite with or without depression posterad spiracle .....		26
26(25)	First metasomal median tergite with depression posterad spiracle (similar to Figs. 36, 37) .....	<i>qui</i> sp. n.	
–	First metasomal median tergite without depression posterad spiracle .....	<i>parathyridis</i> Viereck	

***Sesioctonus acrolophus* Briceño, sp. n.**

Figs. 11, 13, 15, 21, 23, 24, 25, 30, 32, 35

*Diagnosis*.—Face with median longitudinal carina, interantennal space with a sharp longitudinal keel and median areola of metanotum with median longitudinal carina. *S. analogous* is similar but can be distinguished by this combination of characters.

*Description*.—♀. *Length*. Body, 9–10 mm (9.5). *Head*: Flagellum with 32 flagellomeres. Interantennal space with sharp longitudinal keel. Antennal sockets deeply excavated. Face with median longitudinal carina. Genae strongly expanded posterovertrally. Occipital tubercles present. Occiput excavated. Mandible concave, outer tooth longer than inner tooth. Maxilla with 5 palpomeres. Third and fourth labial palpomeres not fused. *Mesosoma*: Subpronope oval. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; with median longitudinal carina; and with lateral carinae present and meeting posteriorly. Propodeum convex, median longitudinal carina present. Epicnemial carina blunt, incomplete dorsally, straight medially (between forecoxae). Foretibial spines present. Midtibia with 8 spines. Hind tibia with 11 spines. Hind femur 3.17 times as long as wide. (RS+M)a vein of forewing incomplete. 3RSa vein of forewing present. 2-1A vein of hind wing not tubular. CUB vein of hind wing not tubular. Hind wing with 4–5 hamuli (4). *Metasoma*: Median tergite of first metasomal segment with pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.09. Ovipositor 9–10 mm (9.2). *Color*: Head melanic except maxillary and labial palpomeres sometimes yellowish orange. Antenna melanic. Mesosoma yellowish orange. Forelegs melanic except coxae yellowish orange. Midlegs melanic except coxae sometimes yellowish

orange. Hindleg melanic except coxa and femur mostly yellowish orange, but melanic distally. Forewing yellow basally and infusate apically. Stigma melanic, or yellowish orange. Hind wing yellow basally infusate apically. Metasoma yellowish orange. Ovipositor yellowish orange.

♂.—Unknown.

*Material examined*.—*Holotype*: Costa Rica: ♀, CRI002 492066, Prov. Alajuela, sector Colonia Palmareña, 700m, oct.1996, G. Carballo (INBio). *Paratypes*: Costa Rica: ♀, Heredia, Est. Biol. La Selva, 50–150m, 10° 26'N 84° 01'W, 02 de Marzo 1993, bosque primario (INBio); ♀, R. San Lorencito, 900m, R. F. San Ramón, 5km N de Colonia Palmareña, Prov. Alajuela, 13–18 Junio.1993, (without abdomen) (INBio); ♀, Heredia, 3km S. Puerto Viejo, OTS, La Selva, 100m, xii.1992, P. Hanson, (UWY); ♀, Heredia, 3km S. Puerto Viejo OTS, La Selva, 100m. 1–15.ix.1992, P. Hanson, huertos, set de trampas malaise de G. Wright (UCR); ♀, La Selva, 15.xii.1993, J Longino (M/04/272) (UK); 2♀, Heredia, Est. Biol. La Selva. 50–150m, 10° 26'N 84° 01'W, x.1992, P. Hanson, C Godoy (UCR) (UCOB); ♀, Limón. 16km W. Guápiles, 400m, i–iv. 1992, col. Paul Hanson (UCR).

*Distribution*.—Known only from lowland Atlantic rain forests in Costa Rica, up to 900m.

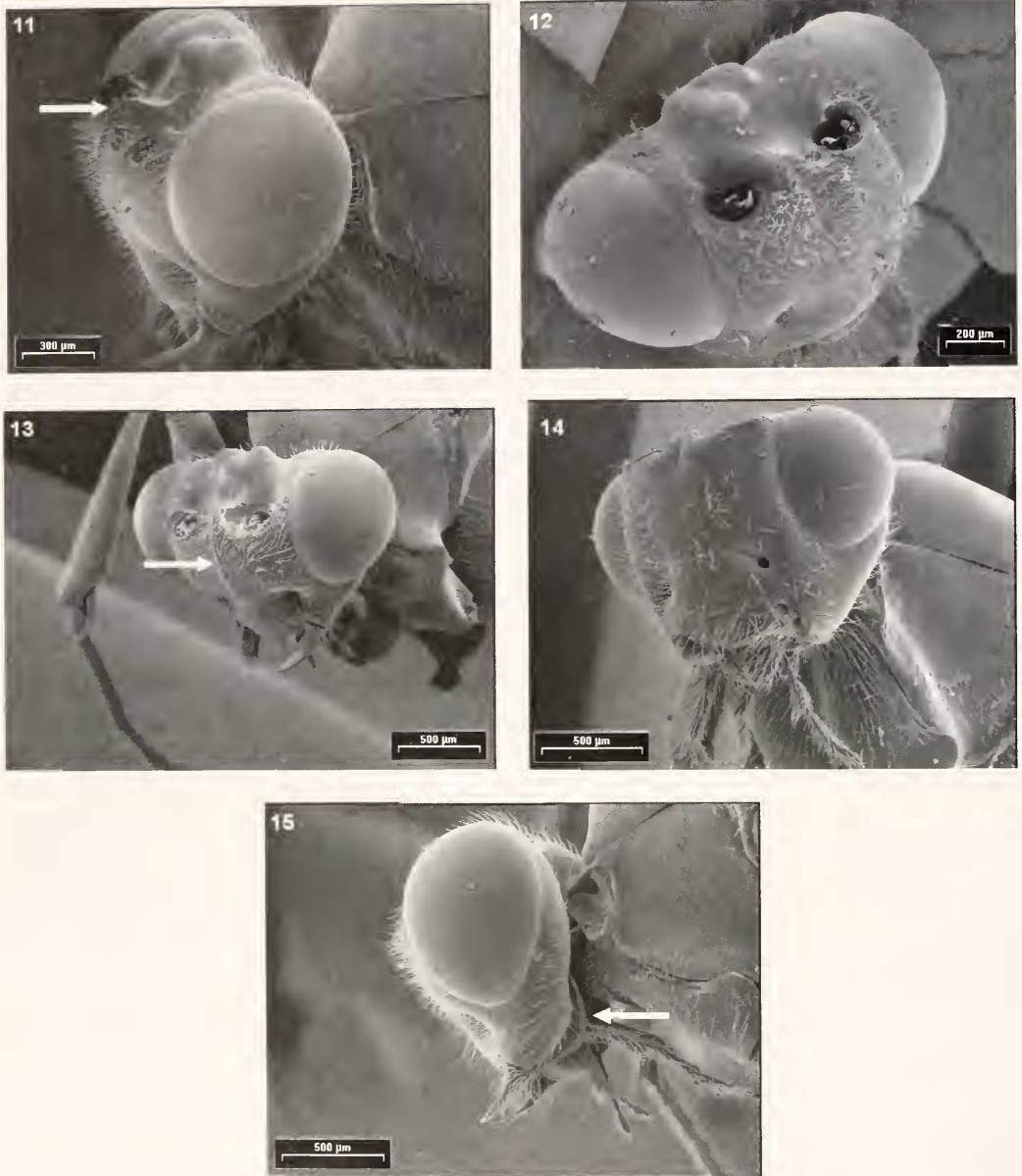
*Etymology*.—From Greek *acrolophus* that means keel, in reference to the longitudinal carina on the face in this species.

***Sesioctonus amazonensis* Briceño, sp. n.**

*Diagnosis*.—*S. amazonensis* share characters with *S. armandoi* from which it is separated by the lack of longitudinal rugosities on the median areola of metanotum and the presence of a complete epicnemial carina.

*Description*.—♀. *Length*. Body 5–7 mm (7.0). *Head*: Flagellum with 35–38 flagellomeres (38). Interantennal space with rounded longitudinal keel. Antennal sockets moderately excavated. Face without median longitudinal carina. Genae not ex-





Figs. 11–15. Head. 11, *S. acrolophus*, arrow shows interantennal space with a sharp longitudinal keel. 12, *S. dichromus* in dorsal view showing interantennal space with a rounded longitudinal keel or absent. 13, *S. acrolophus*, arrow shows face with median longitudinal carina. 14, *S. brasiliensis*. 15, *S. acrolophus*, arrow shows expanded gena.

panded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible flat, outer tooth of mandible not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial pal-

pomeres completely fused. *Mesosoma*: Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal



carina; and with lateral carinae present and meeting posteriorly. Propodeum convex, median longitudinal carina absent. Epicnemial carina, sharp, complete, bilobed medially (between forecoxae). Foretibial spines absent. Midtibia with 5–9 spines (9). Hind tibia with 10 spines. Hind femur 3.51 times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of forewing absent. 2-1A vein of hind wing tubular. CUB vein of hind wing not tubular. Hind wing with 4–5 hamuli (5). **Metasoma:** Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.01. Ovipositor 7 mm. **Color:** Head melanic. Antenna melanic. Maxillary palpomeres yellowish orange except basal two palpomeres melanic. Labial palpomeres yellowish orange. Mesosoma yellowish orange. Forelegs yellowish orange except femur sometimes melanic ventrally. Midlegs yellowish orange except tibia and tarsus melanic. Hindleg melanic with coxa yellowish orange. Forewing banded from base, yellow, infuscate, yellow, infuscate. Stigma melanic. Hind wing banded from base, yellow, infuscate, yellow, infuscate. Metasoma yellowish orange. Ovipositor yellowish orange.

♂.—Unknown.

**Material examined.**—**Holotype.** ♀. Brasil: Amazonas, Res. Ducke, 26km NE Manaus, 22.07.1981, J.A. Rafael, trampa malaise (CNC). **Paratypes.** BRASIL: ♀, same data as holotype (CNC); ♀, Manaus, ZF3, Km 23, Faz.Esteio, Res 1112; B. Klein col. 21.1.1986 (INPA).

**Distribution.**—This species is known only from the Amazonas region of Brasil.

**Etymology.**—This species is named after the locality of the holotype specimen.

**Sesioctonus ammosakron Briceño, sp. n.**

**Diagnosis.**—Epicnemial carina absent, a characteristic shared with *S. chrestos* and *S. grandis*. However, fore tibial with spines

are present the longitudinal carina of the median metasomal tergite are absent in *S. chrestos*. *S. grandis* can be separated by its larger size and the presence of 4 maxillary palpomeres.

**Description.**—♀. **Length.** Body 3.5 mm. **Head:** Flagellum with 24 flagellomeres. Interantennal space without longitudinal keel. Antennal sockets not excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible concave, outer tooth of mandible not longer than inner tooth. Maxilla with 5 palpomeres. Third and fourth labial palpomeres not fused. **Mesosoma:** Subpronope oval. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and meeting posteriorly. Propodeum convex, median longitudinal carina absent. Epicnemial carina completely absent. Foretibial spines absent. Midtibia with 9 spines. Hind tibia with 15 spines. Hind femur 3.14 times as long as wide. (RS+M)a vein of forewing incomplete. 3RSa vein of forewing absent. 2-1A vein of hind wing tubular. CUB vein of hind wing not tubular. Hind wing with 3 hamuli. **Metasoma:** Median tergite of first metasomal segment with pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.32. Ovipositor 3.5 mm. **Color:** Head yellowish orange except vertex and occiput melanic. Antenna melanic. Maxillary and labial palpomeres yellowish orange. Mesosoma yellowish orange sometimes melanic. Forelegs yellowish orange. Midlegs yellowish orange. Hindleg yellowish orange except tibia and tarsus melanic distally. Forewing entirely infuscate. Stigma melanic. Hind wing entirely infuscate. Metasoma yellowish orange but third tergum with median tergite melanic in posterior quarter; fourth tergum with median tergum melanic and

fifth to eighth metasomal terga mostly yellowish orange but median tergites melanic centrally. Ovipositor yellowish orange.

♂.—Unknown.

*Material examined*.—*Holotype*. Costa Rica: ♀, Puntarenas, San Vito, Est. Biol. Las Alturas, 1500m. iii.1992, Paul Hanson. (UWY).

*Distribution*.—This species is known only from the Puntarenas region of Costa Rica.

*Etymology*.—From Greek *ammos* that means sand and *akron* that means top, in reference to holotype locality, Puntarenas.

***Sesioctonus analogus* Briceño, sp. n.**

*Diagnosis*.—*S. analogus* can be distinguished from most *Sesioctonus* species by the presence of 5 maxillary palpomeres and 4 labial palpomeres. However, this character occurs in 5 other species of the genus, of which *S. acrolophus* is closest to *S. analogus*. These two species are separated by the presence of a longitudinal carina on the face of *S. acrolophus*, which is absent in *S. analogus*.

*Description*.—♀. *Length*. Body 10 mm. *Head*: Flagellum with broken after flagellomere 20. Interantennal space with rounded longitudinal keel. Antennal sockets not excavated. Face without median longitudinal carina. Genae strongly expanded posteroventrally. Occipital tubercles present. Occiput excavated. Maxilla with 5 palpomeres. Third and fourth labial palpomeres not fused. *Mesosoma*: Subpronope oval. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and meeting posteriorly. Propodeum convex, median longitudinal carina present. Epicnemial carina blunt, incomplete dorsally, straight medially (between forecoxae). Foretibial spines present. Midtibia with 18 spines. Hind tibia with 21 spines. Hind femur 2.88 times as long as wide. (RS+M)a vein of forewing incomplete. 3RSa vein of fore-

wing present. 2-1A vein of hind wing tubular. CUB vein of hind wing not tubular. Hind wing with 4 hamuli. *Metasoma*: Median tergite of first metasomal segment with pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 0.99. Ovipositor 8 mm. *Color*: Head melanic. Antenna melanic. Maxillary and labial palpomeres yellowish orange. Mesosoma yellowish orange. Forelegs melanic sometimes coxa and tarsus yellowish orange. Midlegs melanic sometimes coxa, femur and basitarsus yellowish orange. Hindleg melanic, sometimes coxa, femur and basitarsus yellowish orange basally. Forewing yellow basally and infusate apically. Stigma melanic. Hind wing yellow basally infusate apically. Metasoma yellowish orange. Ovipositor yellowish orange.

♂.—Unknown.

*Material examined*.—*Holotype*: Costa Rica: ♀, Est. Pitilla, 9km S, Sta. Cecilia, A.C., Guanacaste, Prov. Guana, 700m, v.1994, P. Ríos, Malaise (INBio).

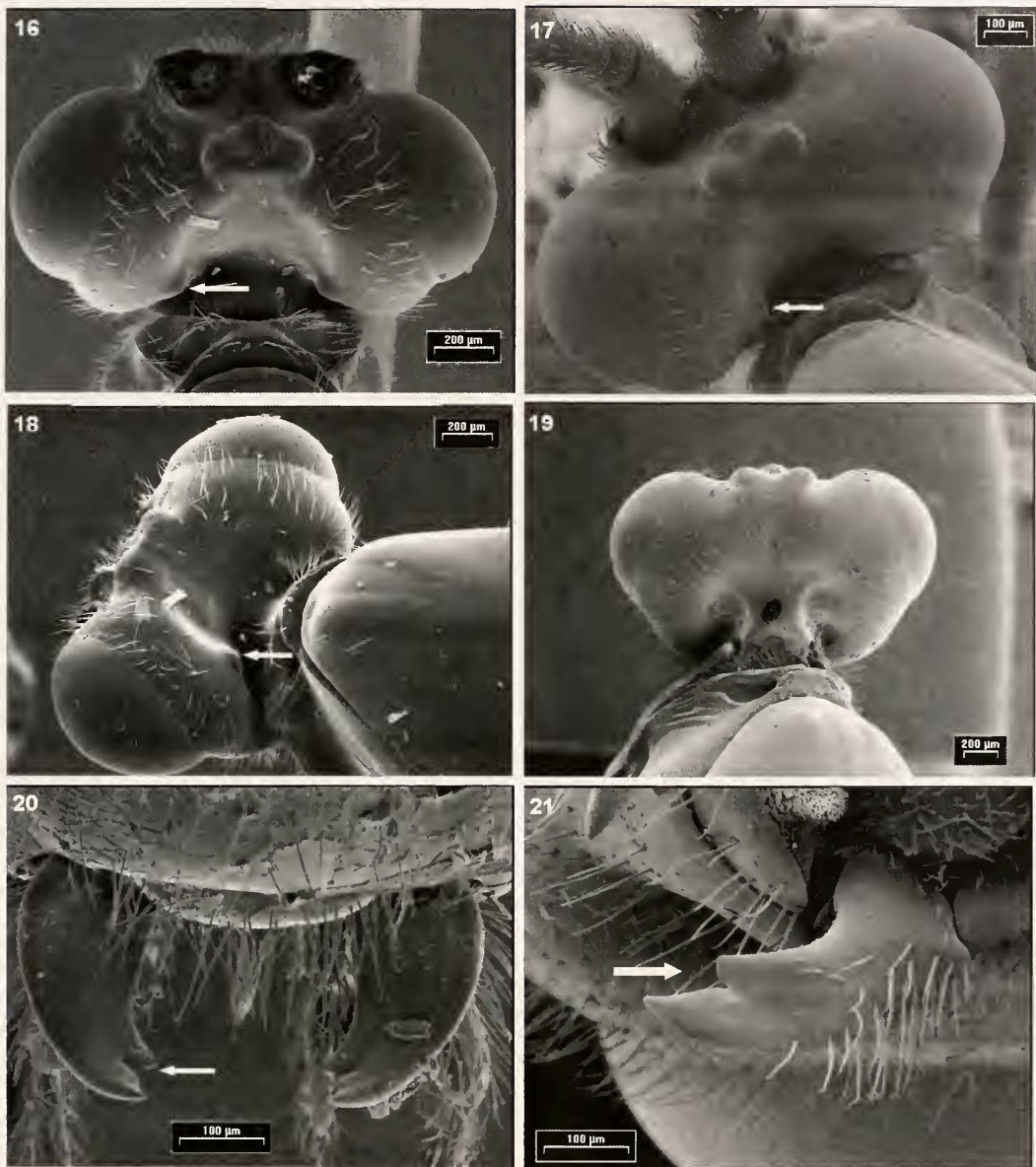
*Distribution*.—This species is known only from lowlands of Costa Rica up to 700m.

*Etymology*.—This species name refers to a similarity with *S. acrolophus*.

***Sesioctonus areolatus* Briceño, sp. n.**

*Diagnosis*.—Presence of central areola on the propodeum, median longitudinal carina of the scutellar depression, foretibial with spines and epicnemial carina complete and straight medially. Also, the body size is small.

*Description*.—♀. *Length*. Body, 4–5 mm (4.2). *Head*: Flagellum with 26–28 flagellomeres (26). Interantennal space without longitudinal keel. Antennal sockets not excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible concave, outer tooth of mandible not longer than



Figs. 16–21. Head. 16–19, Occipital tubercles. 16, 18, *S. dichromus*. 17, *S. diazi*. 19, *S. grandis* without tubercles. 20–21, Mandible teeth. 20, *S. dichromus* with outer tooth not longer than inner tooth. 21, *S. acrolophus* with outer tooth longer than inner tooth.

inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope triangular. Longitudinal carinae of scutellar depression present. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and

with lateral carinae present and meeting posteriorly. Propodeum flat, median longitudinal carina present. Epicnemial carina sharp, complete, straight medially (between forecoxae), sometimes bilobed. Foretibial spines present. Midtibia with 7–8 spines (7). Hind tibia with 10–12 spines



(10). Hind femur 3.35 times as long as wide. (RS+M)a vein of forewing incomplete. 3RSa vein of forewing present. 2-1A vein of hind wing tubular. CUb vein of hind wing not tubular. Hind wing with 3 hamuli. *Metasoma*: Median tergite of first metasomal segment with pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.04. Ovipositor 3–4.3 mm (4.0). *Color*: Head yellowish orange. Antenna melanic. Maxillary and labial palpomeres yellowish orange, sometimes melanic. Mesosoma entirely yellowish orange. Forelegs yellowish orange. Midlegs yellowish orange sometimes tibia melanic. Hindleg yellowish orange with tibia yellowish orange but melanic distally; and tarsus melanic, or yellowish orange. Forewing entirely infuscate or infuscate with hyaline spots. Stigma melanic. Hind wing entirely infuscate. Metasoma yellowish orange. Ovipositor yellowish orange.

♂.—Unknown.

*Material examined*.—*Holotype*. Costa Rica: ♀, Puntarenas, San Vito, Est. Biol. Las Alturas, 2100m, iii–v.1995, Paul Hanson (UWY). *Paratypes*. Costa Rica: 3♀, Puntarenas, San Vito, Est. Biol. Las Alturas, 1500–2100m, v.1992, iii–v.1995, Paul Hanson (UWY); ♀, Guanacaste Prov., 300m, deciduous woods (25–30 yrs), 4.ix–5.x.1985, Gauld & Janzen (UK). Honduras: ♀, Cortés, Parque Nacional Cusuco 5km N de Buenos Aires, 15°29'N 88°13'W, 15.x.1995, malaise trap, R. Cave (MZLU).

*Distribution*.—This species is known only from Costa Rica and Honduras.

*Etymology*.—From Latin *areolatus* that means areolated, in reference to the central areola on the propodeum in this species.

*Sesioctonus ariasi* Briceño, sp. n.

*Diagnosis*.—*S. ariasi* can be distinguished from the rest of *Sesioctonus* species by the following combination of char-

acters: presence of occipital tubercles, median areola of metanotum with lateral carinae not meeting posteriorly, and presence of the longitudinal carinae in the propodeum. This combination could confuse *S. ariasi* with *S. acrolophus*, however these species can be separate easily because the number of maxillary and labial palpomere is fewer in *S. ariasi*.

*Description*.—♀. *Length*. Body, 6–8.5 mm (8.0). *Head*: Flagellum with 30–34 flagellomeres (33). Interantennal space with rounded longitudinal keel. Antennal sockets not excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles present. Occiput excavated. Mandible concave, outer tooth of mandible not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope oval. Longitudinal carina of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum convex, median longitudinal carina present. Epicnemial carina sharp, complete, bilobed medially (between forecoxae). Foretibial spines absent. Midtibia with 8 spines. Hind tibia with 14–16 spines (15). Hind femur 3.32 times as long as wide. (RS+M)a vein of forewing incomplete. 3RSa vein of forewing present. 2-1A vein of hind wing tubular. CUb vein of hind wing not tubular. Hind wing with 5 hamuli. *Metasoma*: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.18. Ovipositor 5–8 mm (7.5). *Color*: Head melanic. Antenna melanic. Maxillary palpomeres melanic, sometimes yellowish orange except basal two palpomeres melanic. Labial palpomeres melanic. Mesosoma mostly yellowish orange with pronotum melanic anteriorly, propleuron and meta-

pleuron melanic, or yellowish orange, sometimes melanic posteriorly. Forelegs melanic except tibia melanic, or yellowish orange and tarsus yellowish orange. Midlegs melanic except tarsus with basitarsus sometimes yellowish orange in basal half. Hindleg melanic. Forewing entirely infusate. Stigma melanic. Hind wing entirely infusate. Metasoma mostly yellowish orange except fifth to eighth metasomal tergite melanic. Ovipositor yellowish orange except apical eighth melanic.

♂.—Essentially as female.

*Material examined*.—*Holotype*: Brazil: ♀, Matogrosso, 12° 31' S, 55° 37' W, ii. 1976, M. Alvarenga (CNC). *Paratypes*: Colombia: ♂, Cundinamarca, Monterredondo, 14.xii.1958, J. Foerster (CNC), ♀, Antioquia, Mun. San Luis R.N. Rio Claro, El Refugio 5° 47' N, 75° 0' W, 500m, malaise, 13.i.98. Diego Campos (UK); ♀, Amazonas, PNN. Amacayacu, Mocagua, 3° 23' S, 70° 06' W, 150m, malaise, 26.ii–12.iii.2001, B. Amado (UK); ♀, Cauca, PNN. Gorgona, Mancora, 2° 58' N, 78° 11' W, 60m, malaise, 26.vi–18.vii.2000, H. Torres (UK). Costa Rica: ♂, Est. Hitoy Cerere, 100m, R. Cerere, Res. Biol. Hitoy Cerere, Prov. Limón, vii.1992, G. Carballo (INBio). Bolivia: ♀, Staudinger K (ZSBS); Ecuador: ♂, Napo, Prov. Sacha, 9.iii.1983, L. Huggert (CNC).

*Distribution*.—From Costa Rica in Central America to Brazil, Bolivia and Colombia in South America.

*Etymology*.—This species is named in honor of Quintín Arias, for his friendship and advice regarding computer software.

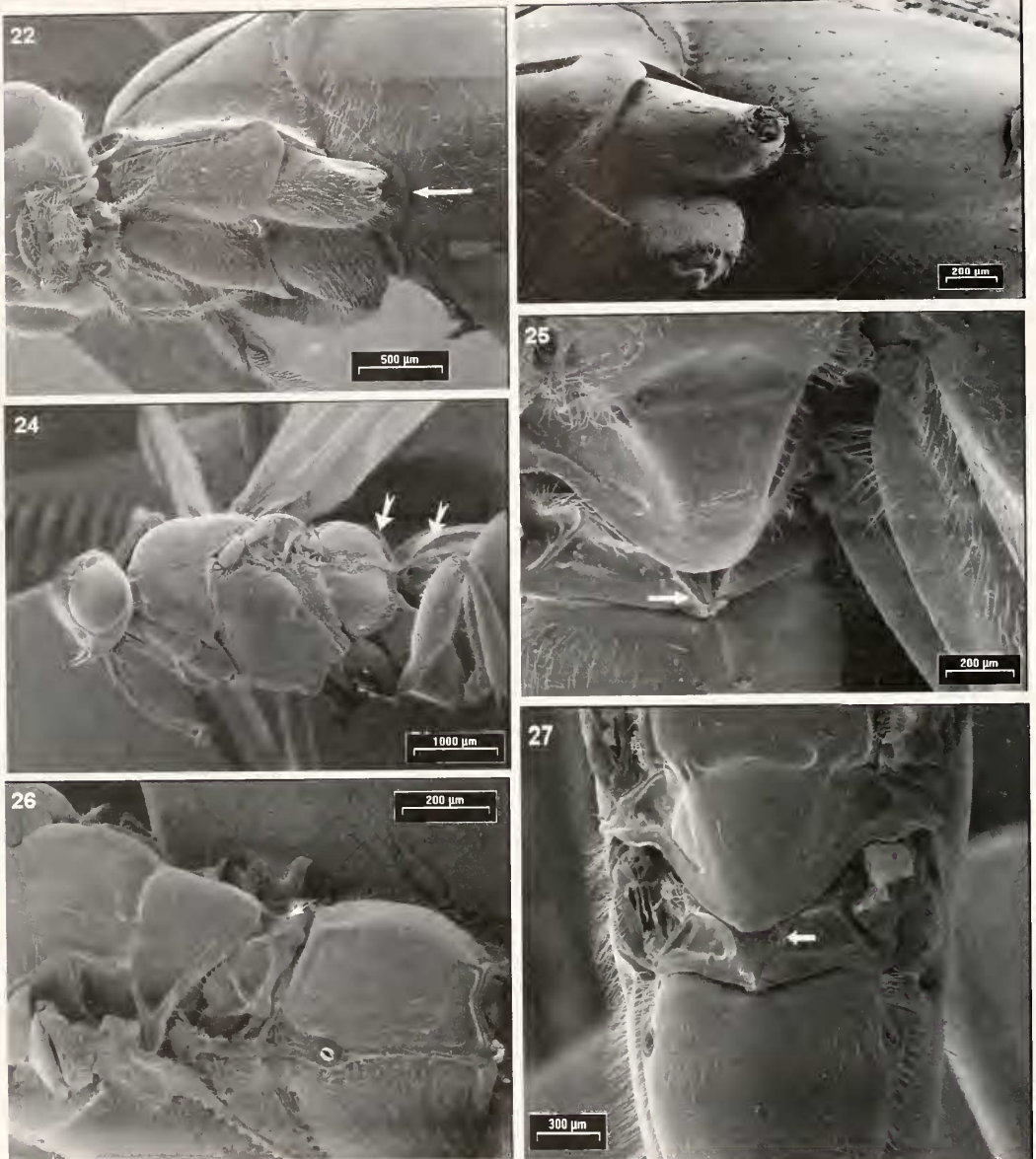
*Sesioctonus armandoi* Briceño, sp. n.

*Diagnosis*.—*S. armandoi* can be distinguished from the rest of *Sesioctonus* species by the following combination of characters: occipital tubercles absent, epicnemial carina incomplete laterally, median areola of metanotum with longitudinal rugosities and with lateral carinae meeting posteriorly. This combination is present in *S. galeos* but the epicnemial carina in this

latter species is straight and not bilobed as *S. armandoi*.

*Description*.—♀. *Length*. Body, 6 mm. *Head*: Flagellum with 34 flagellomeres. Interantennal space with rounded longitudinal keel. Antennal sockets moderately excavated. Face without median longitudinal carina. Genae not expanded posteriorly. Occipital tubercles absent. Occiput not excavated. Mandible concave. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum with longitudinal rugosities; without median longitudinal carina; and with lateral carinae present and meeting posteriorly. Propodeum convex, median longitudinal carina absent. Epicnemial carina, sharp, incomplete dorsally, bilobed medially (between forecoxae). Foretibial spines absent. Midtibia with 5 spines. Hind tibia with 10 spines. Hind femur 3.27 times as long as wide. (RS+M) vein of forewing complete. 3RSa vein of forewing absent. 2-1A vein of hind wing tubular. Cub vein of hind wing not tubular. Hind wing with 4 hamuli. *Metasoma*: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 0.94. Ovipositor 6 mm. *Color*: Head melanic. Antenna melanic. Maxillary and labial palpomeres yellowish orange. Mesosoma melanic except metanotum, propodeum and metapleuron yellowish orange. Forelegs yellowish orange. Midlegs yellowish orange. Hindleg melanic except trochanter and trochantellus yellowish orange. Forewing banded from base, yellow, infusate, yellow, infusate. Stigma melanic. Hind wing banded from base, yellow, infusate, yellow, infusate. Metasoma yellowish orange until third tergum, rest melanic. Ovipositor yellowish orange.





Figs. 22–27. 22–23, Epicnemial carina. 22, Complete and bilobed in *S. brasiliensis*, 23, incomplete and straight in *S. acrolophus*. 24, *S. acrolophus* in lateral view, right arrow shows longitudinal carina of propodeum and left arrow first metasomal segment with pair of lateral longitudinal carinae. 25–27, Median areola of metanotum. 25, Smooth with longitudinal carinae and lateral carinae meeting posteriorly in *S. acrolophus*. 26, Smooth with lateral carinae meeting posteriorly in *S. clavijoi*. 27, Smooth with lateral carinae not meeting posteriorly in *S. brasiliensis*.

♂.—Essentially as female.

*Material examined*.—*Holotype*: Ecuador: ♀, Napo & Coca Rivers, 2–10.v.1965, Luis Peña (AEI). *Paratypes*: Colombia: ♀, Amazonas, PNN Amacayacu Mocagua, 3° 23'

N, 70° 06' W, 150m, 7–19.vii.2000, A Parente (UK); ♂, Amazonas, PNN Amacayacu Matamata, 8–12.iii.2000, Sharkey (UK).

*Distribution*.—This species is known only from Ecuador and Colombia.

*Etymology*.—This species is named in honor of Armando Briceño, venezuelan entomologist, and my uncle.

***Sesioctonus biospleres* Briceño, sp. n.**

*Diagnosis*.—*S. biospleres* can be distinguished by the following combination of characters: genae expanded posteriorly, occipital tubercles absent, epicnemial carina incomplete laterally, foretibia with spines and median tergite of first metasomal tergum with pair of longitudinal carinae.

*Description*.—♀. *Length*. Body, 6–8 mm (6.5). *Head*: Flagellum with 30–35 flagellomeres (34). Interantennal space with rounded longitudinal keel, or keel lacking. Antennal sockets not excavated. Face without median longitudinal carina. Genae expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible concave, outer tooth of mandible not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and meeting posteriorly. Propodeum convex, median longitudinal carina present. Epicnemial carina, sharp, incomplete laterally, bilobed medially (between forecoxae). Foretibial spines present. Midtibia with 6–10 spines (9). Hind tibia with 10–14 spines (14). Hind femur 3.11 times as long as wide. (RS+M) vein of forewing incomplete. 3RSa vein of forewing absent. 2-1A vein of hind wing tubular. Cub vein of hind wing not tubular. Hind wing with 3 hamuli. *Metasoma*: Median tergite of first metasomal segment with pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 0.98. Ovipositor 5.5–6.5 mm (6.3). *Color*: Head yellowish orange. Antenna melanic. Maxillary and

labial palpomeres yellowish orange. Mesosoma yellowish orange. Forelegs yellowish orange except femur and tibia melanic, or melanic with yellowish orange apically. Midlegs yellowish orange except tibia melanic apically. Hindleg yellowish orange except tibia yellowish orange with apical third melanic and tarsus melanic with basitarsus yellowish orange in basal third. Forewing yellow basally and infusate apically. Stigma melanic. Hind wing yellow basally infusate apically. Metasoma yellowish orange. Ovipositor yellowish orange.

♂.—Unknown.

*Material examined*.—*Holotype*: Costa Rica: ♀, Prov. Puntarenas, Est. Agujas, Río Agujas, sendero Samia, 300m, 1–3.vi.1997, A. Azofeifa (INBio). *Paratypes*: Costa Rica: ♀, Rancho Quemado, 200m, Peninsula de Osa, Prov. Puntarenas, vi.1992, F. Quesada y M. Segura (INBio); ♀, Rancho Quemado, Peninsula de Osa, Prov. Puntarenas, 200m, 01.xi–01.xii.1992, A. L. Marín (INBio). Panama: ♀, Barro Colorado Is, 9°9'N 79°51'W, 11–18.v.1994, J. Pickering (UK).

*Distribution*.—This species is known only from lowlands of Prov. Puntarenas, Costa Rica and Barro Colorado in Panama.

*Etymology*.—From Greek *bios* meaning life and *pleres* that means abundance.

***Sesioctonus boliviensis* Briceño, sp. n.**

*Diagnosis*.—*S. boliviensis* can be separated by the following combination of characters: interantennal space with a longitudinal rounded keel and the presence of the occipital tubercles.

*Description*.—♀. *Length*. Body, 10 mm. *Head*: Interantennal space with rounded longitudinal keel. Antennal sockets moderately excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles present. Occiput excavated. Mandible concave, outer tooth of mandible not longer than inner tooth. Third and fourth labial palpomeres completely fused. *Mesosoma*:

Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum flat, median longitudinal carina absent. Epicnemial carina sharp, complete, bilobed medially (between forecoxae). Foretibial spines absent. Midtibia with 6 spines. Hind tibia with 19 spines. Hind femur 3.21 times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of forewing absent. 2-1A vein of hind wing tubular. CUB vein of hind wing not tubular. Hind wing with 5 hamuli. *Metasoma*: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 0.79. Ovipositor 10 mm. *Color*: Head melanic except labial palpomeres melanic. Antenna melanic. Mesosoma yellowish orange sometimes pronotum and propleuron melanic. Forelegs melanic. Midlegs melanic. Hindleg melanic. Forewing banded from base infusate, yellow, infusate. Stigma melanic. Hind wing entirely infusate. Metasoma yellowish orange. Ovipositor yellowish orange.

♂.—Unknown.

*Material examined*.—Holotype. Bolivia: ♀, Staudinger K (ZSBS).

*Distribution*.—This species is known only from Bolivia, South America.

*Etymology*.—The name *boliviensis* refers to the country of origin of the holotype.

*Sesioctonus brasiliensis* Briceño, sp. n.

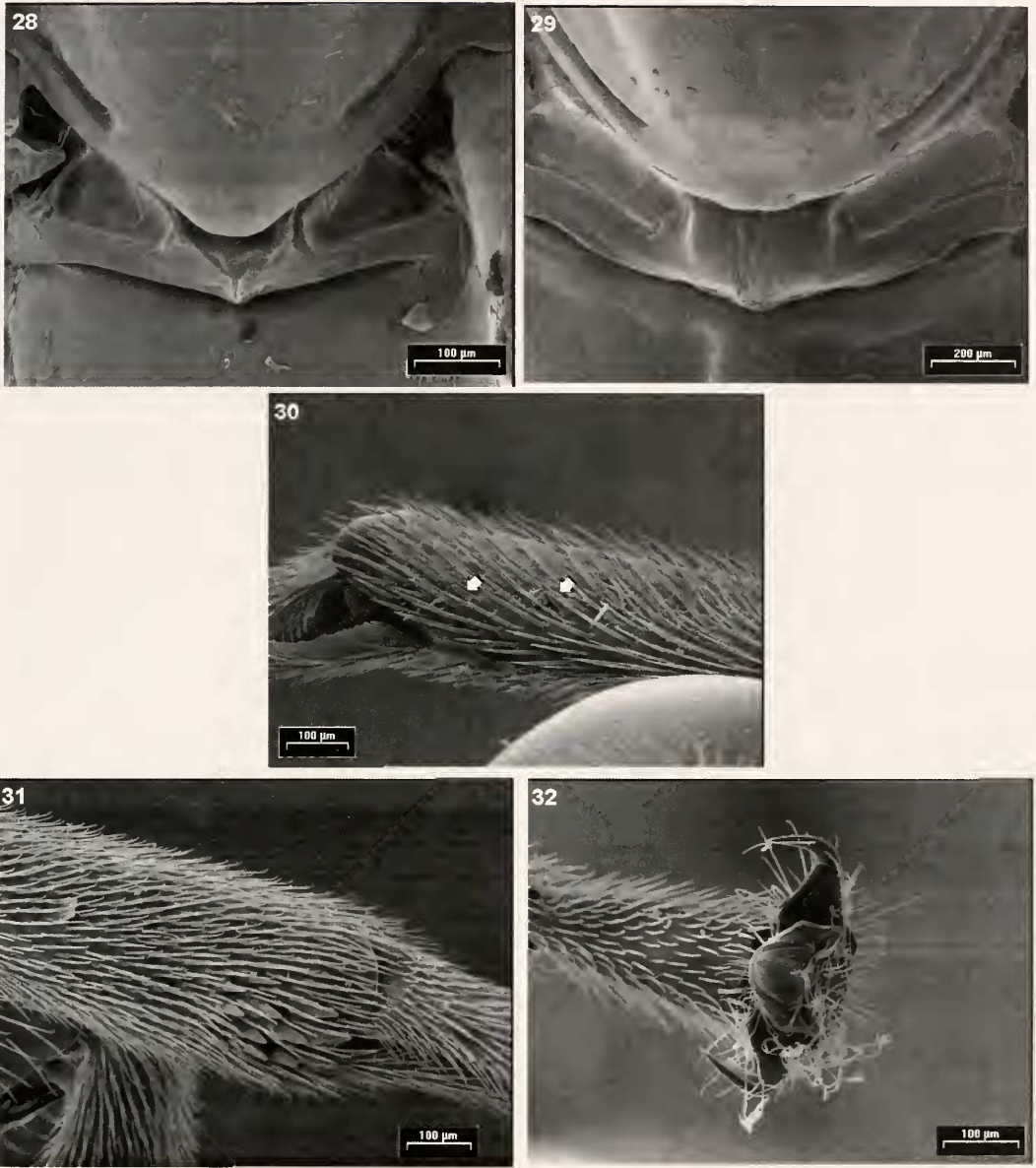
Figs. 14, 22, 27, 34

*Diagnosis*.—*S. brasiliensis* is the only species with metasoma reddish brown and forewing with a large hyaline spot. Also, the median areola of metanotum does not have longitudinal and lateral carinae, nor longitudinal rugosities. Occipital tubercles are present in this species.

*Description*.—♀. *Length*. Body, 9–10 mm

(9.0). *Head*: Flagellum with 30–35 flagellomeres (33). Interantennal space with rounded longitudinal keel. Antennal sockets deeply excavated, sometimes moderately excavated. Face without median longitudinal carina. Genae moderately expanded posteroventrally. Occipital tubercles present. Occiput excavated. Mandible concave, outer tooth of mandible not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and lacking lateral carinae. Propodeum convex, median longitudinal carina absent. Epicnemial carina sharp, complete, bilobed medially (between forecoxae). Foretibial spines absent. Midtibia with 8–11 spines (8). Hind tibia with 14–17 spines (14). Hind femur 3.64 times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of forewing present. 2-1A vein of hind wing tubular. CUB vein of hind wing not tubular. Hind wing with 5–6 hamuli (6). *Metasoma*: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.09. Ovipositor 8 mm. *Color*: Head melanic. Antenna melanic. Maxillary palpomeres yellowish orange. Labial palpomeres melanic. Mesosoma melanic. Forelegs mostly yellowish orange except coxae melanic, tibia yellowish orange, or melanic; and tarsus mostly yellowish orange, but apical tarsomere melanic. Midlegs mostly melanic except trochanter and trochantellus yellowish orange, femur yellowish orange in basal half, melanic apically. Hindlegs mostly melanic except trochantellus melanic, or yellowish orange. Forewing infusate with large hyaline spot. Stigma melanic. Hind wing entirely infusate. Metasoma reddish brown with the last





Figs. 28–32. Median areola of metanotum. 28, Smooth with lateral carinae not meeting posteriorly in *S. diazi*. 29, With longitudinal rugosities and lacking lateral carinae in *S. grandis*. 30–32, 30, Foretibia of *S. acrolophus* showing spines. 31, Midtibia of *S. dichromus* showing spines. 32, Simple tarsal claws in *S. acrolophus*.

four segments melanic. Ovipositor yellowish orange.

♂.—Essentially as the female.

*Material examined*.—*Holotype*. Brazil: ♀, Nova Teutonia, 27°11'S 52°23'W, 300–500m, 24.i.1939, Fritz Plaumann (CNC).

*Paratypes*. Brazil: ♀, Nova Teutonia,

27°11'S 52°23'W, 300–500m, Fritz Plaumann; 2♀, same data except 30.i.1939, 26.i.1939 (BMNH); ♀, same data except vii.1940; ♂, same data except 18.v.1954 (AEI); 5♀, same data except ii.1967, iii.1965, xi.1968, ii.1966; ♂, same data except 21.x.1940 (CNC); 2♀, same data ex-

cept 6–10.iii.1967 (UK); ♀, Represa Río Grande, Guanabara, xii.1967. M. Alvarenga (AEI).

*Distribution*.—This species is known only from Nova Teutonia region of Brazil.

*Etymology*.—This species is named after the country of the holotype specimen.

*Sesioctonus chaconi* Briceño, sp. n.

*Diagnosis*.—This species may be recognized by the combination of a long outer tooth of the mandible and the absent of the 3RSa vein in the forewing.

*Description*.—♀. *Length*. Body, 6–9 mm (6.5). *Head*: Flagellum with 29–33 flagellomeres (29). Interantennal space with rounded longitudinal keel. Antennal sockets moderately excavated, or not excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles present. Occiput excavated. Mandible concave, outer tooth of mandible longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum flat, median longitudinal carina absent. Epicnemial carina, sharp, complete, bilobed medially (between forecoxae). Foretibial spines absent. Midtibia with 8–13 spines (9). Hind tibia with 13–16 spines (15). Hind femur 3.39 times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of forewing absent. 2-1A vein of hind wing tubular. C<sub>u</sub>b vein of hind wing not tubular. Hind wing with 4–5 hamuli (4). *Metasoma*: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.19. Ovipositor 6–8 mm (6.1). *Color*: Head melanic except maxillary palpomeres yellowish or-

ange. Antenna melanic. Mesosoma mostly yellowish orange except pronotum melanic anteriorly; metanotum, propodeum and metapleuron yellowish orange or melanic; and propleuron always melanic. Forelegs with coxa, trochanter and trochantellus melanic, or yellowish orange; femur yellowish orange, melanic basally; tibia and tarsus yellowish orange. Midlegs with coxa yellowish orange ventrally, melanic dorsally; trochanter melanic, trochantellus yellowish orange, femur melanic in basal half, yellowish orange apically, or yellowish orange, tibia yellowish orange, or melanic, and tarsus yellowish orange but apical tarsomere melanic. Hindleg melanic except coxa yellowish orange in basal half, melanic apically; femur melanic, or yellowish orange, melanic basally. Forewing banded from base, yellow, infusate, yellow, infusate. Stigma melanic. Hind wing banded from base, yellow, infusate, yellow, infusate. Metasoma yellowish orange except first metasomal tergum yellowish orange, but median tergite melanic centrally and fifth to eighth metasomal terga melanic. Ovipositor yellowish orange.

♂. Essentially as female.

*Material examined*.—*Holotype*. Ecuador: ♀, Napo, Tena, 23.v.1977, DL& SS Vincent (CNC). *Paratypes*. Ecuador: ♀, Banos, 700m, 20.iii.1939, W. Clarke-MacIntyre (AEI); ♀, Coca, v.1965, Luis Peña (AEI); ♀, Prov. Santa Clara, 30.vi.1976, P. M. Turner (CNC). Peru: ♂, Yahuar Mayo, 8.ii.1910, CHTTownsend col (CNC); ♀, Loreto, Pucallpa, 12.vi.1951, J. M. Schuncke (CNC); ♀, Loreto, Boqueron Abad, 27.xii.1961, J. M. Schuncke (CNC); ♀, Avispas, 30m nr. Marcapata, 1–15.x.1962, Luis Peña (AEI); ♀, Loreto, Boquerón, 500m, 7–14.vii.1965, J. Schuncke (UK). Colombia: ♀, Putumayo, Villa Garzón, 8mi. s. Mocoá, 3.viii.1978, M. Cooper (CNC).

*Distribution*.—This species is distributed in northwestern of South America, from Colombia to Peru and Ecuador.

*Etymology*.—This species is named in



honor of Mr. Aníbal Chacón, who during many years has shared with Venezuelan entomologists his passion for entomology and insects collecting in Venezuela.

*Sesioctonus chrestos* Briceño, sp. n.

*Diagnosis.*—*S. chrestos* is known only from one male specimen, however can be distinguished from all other species by the following combination of characters: maxilla with 5 palpomeres, labium with 4, epicnemial carina absent and foretibia with spines.

*Description.*—♂. *Length.* Body, 5.5 mm. *Head:* Flagellum with broken after flagellomere 12. Interantennal space with rounded longitudinal keel. Antennal sockets not excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Maxilla with 5 palpomeres. Third and fourth labial palpomeres partly fused. *Mesosoma:* Subpronope oval. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum convex, median longitudinal carina absent. Epicnemial carina completely absent. Foretibial spines present. Midtibia with 2 spines. Hind tibia with 5 spines. Hind femur 3.06 times as long as wide. (RS+M)a vein of forewing incomplete. 3RSa vein of forewing present. 2-1A vein of hind wing tubular. CUB vein of hind wing not tubular. Hind wing with 3 hamuli. *Metasoma:* Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.04. *Color:* Head yellowish orange. Antenna melanic. Maxillary and labial palpomeres yellowish orange. Mesosoma yellowish orange except scutellum, metanotum, propodeum, mesopleuron and metapleuron melanic. Forelegs yellowish

orange. Midlegs mostly melanic except femur yellowish orange apically; and tibia yellowish orange. Hindleg melanic. Forewing entirely infusate. Stigma melanic. Hind wing entirely infusate. Metasoma with first and second terga yellowish orange, but median tergite melanic centrally; rest of metasomal terga melanic.

♀.—Unknown.

*Material examined.*—*Holotype.* Peru: ♂, Marcapata (TMB).

*Distribution.*—This species is known only from Peru.

*Etymology.*—From Greek *chrestos* that means good, useful.

*Sesioctonus clavijoi* Briceño, sp. n.

Fig. 26

*Diagnosis.*—*S. clavijoi* shows color patterns similar to *S. areolatus*, however can be separated from the latter by the presence of the bilobed epicnemial carina. *S. areolatus* has this carina straight and also has a central areola on the propodeum and a longitudinal carina on the scutellar depression, both of which are absent in *S. clavijoi*.

*Description.*—♀. *Length.* Body, 4–5.5 mm (5.1). *Head:* Flagellum with 25 flagellomeres. Interantennal space lacking longitudinal keel. Antennal sockets not excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible concave, outer tooth of mandible not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma:* Longitudinal carinae of scutellar depression absent. Scutellum flat. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and meeting posteriorly. Propodeum convex, median longitudinal carina absent. Epicnemial carina sharp, complete, bilobed medially (between forecoxae). Foretibial spines present. Midtibia with 5–9 spines (8). Hind tibia with 10–12 spines (12). Hind femur

3.1 times as long as wide. (RS+M)a vein of forewing incomplete. 3RSa vein of forewing absent. 2-1A vein of hind wing not tubular. CUB vein of hind wing not tubular. Hind wing with 3 hamuli. **Metasoma**: Median tergite of first metasomal segment with pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.04. Ovipositor 4 mm. **Color**: Head yellowish orange. Antenna melanic. Maxillary and labial palpomeres yellowish orange. Mesosoma yellowish orange. Forelegs yellowish orange. Midlegs yellowish orange. Hindleg yellowish orange except tibia mostly yellowish orange, but melanic apically and tarsus melanic, or melanic with basitarsus yellowish orange basally, or melanic with basitarsus yellowish orange in basal third. Forewing entirely infusate. Stigma melanic. Hind wing entirely infusate. Metasoma yellowish orange. Ovipositor yellowish orange.

♂.—Essentially as female.

**Material examined**.—**Holotype**. Costa Rica: ♀, Puntarenas, Golfo Dulce, 24km W. Piedras Blancas, 200m, iv.1993, Paul Hanson (UWY). **Paratypes**. Costa Rica: 3♀, same data as holotype, except 10–200m, xii.1992, ii.1993, Paul Hanson (UWY); ♂, Puntarenas, San Vito, Est. Biol. Las Alturas, 1500m, iii.1992, Paul Hanson (UWY). Peru: ♀, Quincemil, 750m nr. Marcapata, 10–15.xi.1962, Luis Peña (AEI). Mexico: ♀, Vista Hermosa, Oaxaca, 96.5km SW Tuxtepec, 19.x.1962, H. & M. Townes (AEI).

**Distribution**.—Southern Mexico, Costa Rica and Peru.

**Etymology**.—This species is named in honor of José Clavijo A., Venezuelan taxonomist, my professor and my friend, who has shared with me many of my entomologist dreams and has been an important part of my life. Thanks for all that you have done for me.

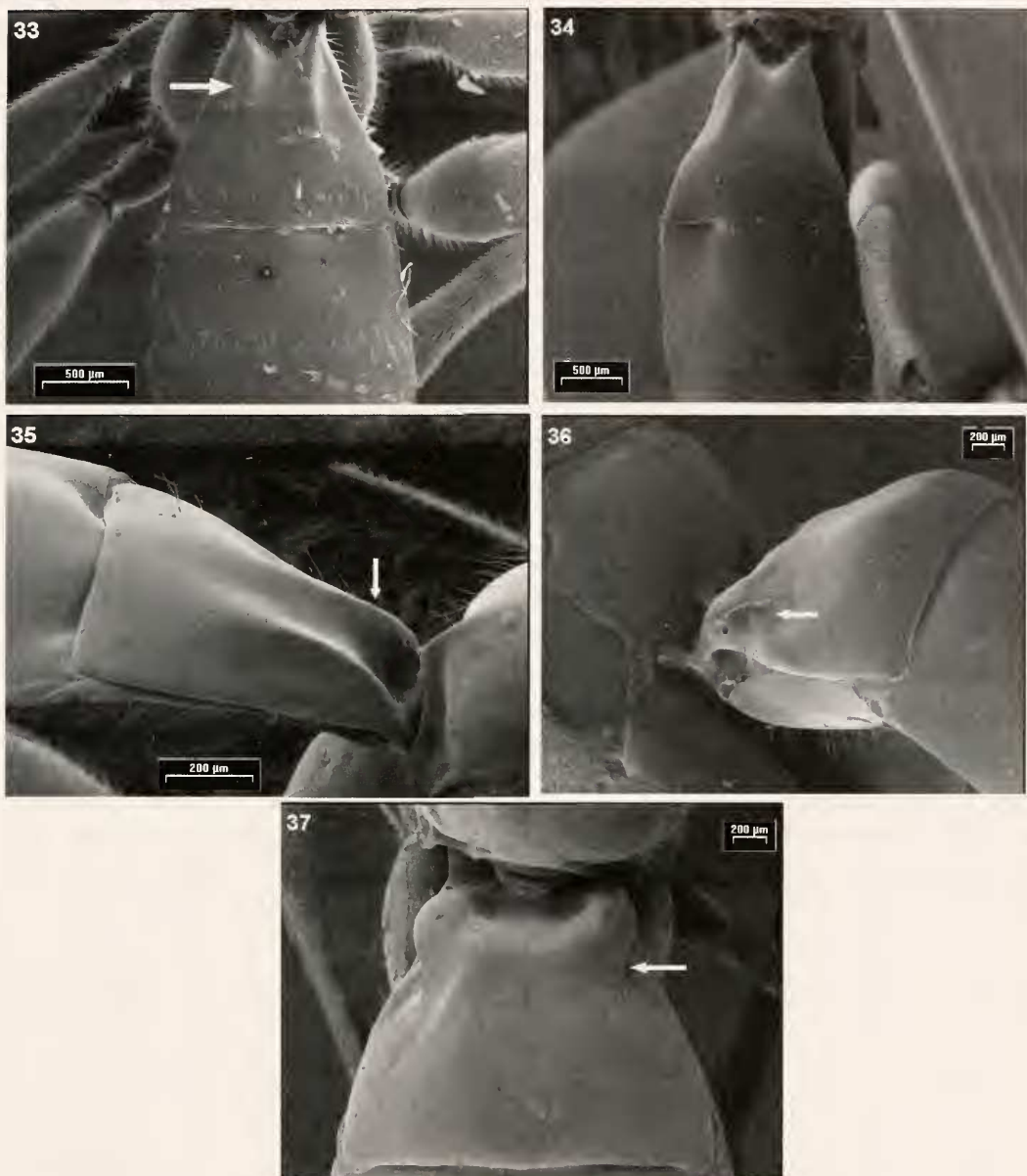
*Sesioctonus diazi* Briceño, sp. n.

Figs. 17, 28

**Diagnosis**.—*S. diazi* is not an easy species to distinguish because of intraspecific

variation, especially in color pattern. It can be confused with specimens of *S. chaconi*, and separation of these species is complicated because the differences are primarily in the relative sizes of the mandible teeth.

**Description**.—♀. **Length**. Body, 7–8 mm (7.5). **Head**: Flagellum with 28–34 flagellomeres (33). Interantennal space with rounded longitudinal keel. Antennal sockets moderately excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles present. Occiput excavated. Mandible concave, outer tooth of mandible not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. **Mesosoma**: Subpronope triangular or oval-shape. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum flat, median longitudinal carina absent. Epicnemial carina, sharp, complete, bilobed medially (between forecoxae). Foretibial spines absent. Midtibia with 8–11 spines (10). Hind tibia with 15–23 spines (17). Hind femur 3.01–3.22 (3.08) times as long as wide. (RS+M)a vein of forewing complete or incomplete. 3RSa vein of forewing present. 2-1A vein of hind wing tubular. CUB vein of hind wing not tubular. Hind wing with 4–5 (5) hamuli. **Metasoma**: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 0.84–1.03 (0.84). Ovipositor 5–8 mm (7.1). **Color**: Head melanic. Antenna melanic. Maxillary and labial palpomeres yellowish orange except basal two palpomeres melanic. Mesosoma mostly yellowish orange sometimes pronotum and propleuron melanic. Forelegs melanic, or tarsus mostly yellowish orange, but apical tarsomere melanic. Midlegs variable, tarsus melanic, or yellowish orange



Figs. 33–37. First metasomal tergite. 33,35, With lateral longitudinal carinae. 33, *S. dichromus*. 35, *S. acrolophus*. 34, *S. brasiliensis* without lateral longitudinal carinae. 36–37, *S. grandis* showing depression posterad spiracle.

but apical tarsomere melanic. Hindlegs melanic but coxa can be yellowish orange in basal half, melanic apically, or yellowish orange with melanic spots laterally, or melanic, or yellowish orange basally, otherwise melanic. Forewing yellow basally and infuscate apically, or banded from

base, yellow, infuscate, yellow, infuscate. Stigma melanic. Hind wing yellow basally infuscate apically. Metasoma yellowish orange. Ovipositor yellowish orange, or yellowish orange except apical eighth melanic.

♂.—The color pattern in males is essen-



tially as females except fifth to eighth metasomal tergite which sometimes can be yellowish orange with central portion of median tergite melanic.

*Material examined*.—*Holotype*. Costa Rica: ♀, Heredia, Est. Biol. La Selva, 50–150m, 10°26'N 84°01'W, viii.1998 (INBio). *Paratypes*. Costa Rica: ♀, Nara NE Quepos, 16.vii.1975, W.J.Hanson (CNC); ♀, Prov. Alajuela, 28.v.1972, J.F.Alvarez (UCR); ♂, Alajuela, Upala, Colonia Libertad, 450m, 1–6.v.1988, González & Soto (UCR); ♀, Prov. Golfo Dulce, 24km W Pan-Am highway, 200m, iii–v.1989, Gauld (BMNH); 3♀, 2♂, same data as holotype except, 02.v.1993, vi.1993, vii.1993, 03.viii.1993, v.1996 (INBio)(UCOB)(UK); ♀, Prov. Puntarenas, Est. Agujas, sendero Ajo., 300m, 14–24.viii.1996, A. Azofeifa (INBio). Guatemala: ♀, Concepción, 1400m (UK). Panama: 4♀, Barro Colorado Is, 9°9'N 79°51'W, v.1939, Jas Zetek (USNM), 5–12.v.1993, 23–30.iii.1994, 30.iii–6.iv.1994. J. Pickering (UK); 1♀, 1♂, Portobello, 24.ii.1911, 13.iii.1911, A. Busk (CNC); ♀, San Blas Nusagandi Reserve, 9°20'N 79°0'W, 20–27.xi.1993. J. Pickering (UK).

*Distribution*.—*Sesioctonus diazi* is distributed from Guatemala to Panama in Central America.

*Etymology*.—This species is named in honor of Francisco Díaz, venezuelan entomologist, for his contribution to the knowledge of Venezuela ichneumonids.

*Sesioctonus dichromus* Briceño, sp. n.

Figs. 12, 16, 18, 20, 31, 33

*Diagnosis*.—*S. dichromus* can be distinguished from other *Sesioctonus* species by the following combination of characters: occipital tubercles present, occiput excavated, median areola of metanotum with lateral carinae present and meeting posteriorly, the median tergite of first metasomal segment with well defined pair of lateral longitudinal carinae.

*Description*.—♀. *Length*. Body, 6–10 mm (9.5). *Head*: Flagellum with 30–35 flagellomeres (33). Interantennal space with

rounded longitudinal keel. Antennal sockets moderately excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles present. Occiput excavated. Mandible concave, outer tooth of mandible longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope triangular or oval. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and meeting posteriorly, or lacking lateral carinae. Propodeum flat, median longitudinal carina present or absent. Epicnemial carina sharp, complete, bilobed medially (between forecoxae). Foretibia spines absent. Midtibia with 7–13 spines (12). Hind tibia with 18–25 spines (19). Hind femur 3.28–3.6 times as long as wide (3.54). (RS+M)a vein of forewing complete or incomplete. 3RSa vein of forewing present or absent. 2-1A vein of hind wing tubular. Cub vein of hind wing not tubular. Hind wing with 5–7 hamuli (7). *Metasoma*: Median tergite of first metasomal segment with pair of lateral longitudinal carinae. Median tergite of first metasomal segment without depression posterad spiracle. Length width ratio of first metasomal median tergite 0.97. Ovipositor 6–9 mm (9.0). *Color*: Head melanic including maxillary and labial palpomeres. Antenna melanic. Mesosoma melanic. Forelegs melanic. Midlegs melanic. Hindleg melanic. Forewing entirely infusate, or hyaline basally, infusate apically. Stigma melanic. Hind wing entirely infusate, or infusate with large hyaline spots, or hyaline basally, infusate apically. Metasoma yellowish orange. Ovipositor yellowish orange.

♂.—Essentially as the female.

*Material examined*.—*Holotype*. Costa Rica: ♀, Alajuela, San Ramón, 800m, 29.i–03.ii.1995, G. Carballo (INBio). *Paratypes*. Costa Rica: 29♀, Heredia, Est. Biol. La Selva, 50–150m, 10°26'N 84°01'W, 11–

17.vi.1986, 2.v.1993, vi.1993, viii.1993, ix.1993, 01.ix.1993, 16.ix.1993, xii.1993, 22.iii.1994, 29.ix.1995, ix.1995, 15.xii.1995, 14.xii.1995, ii.1996, 01.iii.1996, iii.1996, vi.1996, 2.v.1996, 15.v.1996, 02.x.1997, xi.1997, ix.1998, 22.i.1999 (INBio) (UK) (UCR) (UWY) (UCOB); ♂, Heredia, Est. El Ceibo, Braulio Carrillo, N.P. 400–600m, iii.1990, C. Chavez (INBio); 2♀, Est. Pitilla, 9km Sur Santa Cecilia, Guanacaste, 700m, xi.1988, C. Chavez & M. Espinoza, ii.1990, P. Ríos, C. Moraga & R. Blanco (INBio); 4♀, El Limón, Sector Cerro Cocorí, Finca de E. Rojas, 150m, v.1991, 5.vii–12.viii.1992, 11.i–12.ii.1993, Trampa malaise (INBio); ♀, El Limón, 16km W Guapiles, Parque Nacional Braulio Carrillo, 400m, iv–v.1989, Gauld (BMHN); ♀, Limón, P N Tortuguero, Est. 4-esquinas, 0m, vi–viii.1989, Solano col (UWY); ♀, Puntarenas, Rancho Quemado, Peninsula de Osa, 200m, iv.1992, L.Brenes (INBio); ♀, Alajuela, Penas Blancas, 700m, viii.1987, E. Cruz (CNC); ♀, Alajuela, Sector Colonia Palmareña, 9km SO de Bajo Rodríguez, 700m, ix.1996, G. Carballo (INBio); ♀, San José, P.N. Braulio Carrillo, 9.5km E túnel, 1000m, viii–ix.1989 (UWY); ♂, Alajuela, Sector San Ramón, 800m, 11–15.iv.1994, M. Zumbado (INBio); ♀, Est. Biol. La Selva, 30.vi.1995 (UK). Mexico: ♀, Chiapas, Muste, 440m near Huixtla. 1970. Mal. trap. Welling (CNC).

*Distribution*.—This species is known from México to Costa Rica.

*Etymology*.—From Greek *di* that means two and *chromos* that means color, in reference to the color pattern of the species, half melanic, half yellowish orange.

***Sesioctonus dominicus* Briceño, sp. n.**

*Diagnosis*.—*S. dominicus* is known only from males specimens. However, it can be separated from all other *Sesioctonus* species by its small size (2.0–3.5mm) and totally hyaline wings.

*Description*.—♂. *Length*. Body, 2–3.5 mm (2.5). *Head*: Flagellum with 23–27 flagellomeres (25). Interantennal space lacking

longitudinal keel. Antennal sockets not excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible flat, outer tooth of mandible not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope elongate-oval. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and meeting posteriorly. Propodeum convex, median longitudinal carina absent. Epicnemial carina (difficult to see), sharp, incomplete dorsally, straight medially (between forecoxae). Foretibial spines absent. Midtibia with 7–10 spines (8). Hind tibia with 13–16 spines (15). Hind femur 1.14 times as long as wide. (RS+M)a vein of forewing incomplete. 3RSa vein of forewing absent. 2-1A vein of hind wing not tubular. CUB vein of hind wing not tubular. Hind wing with 3 hamuli. *Metasoma*: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.10. *Color*: Head black except face yellowish orange. Antenna melanic. Maxillary and labial palpomeres yellowish orange. Mesosoma melanic except propodeum, propleuron and metapleuron yellowish orange and pronotum yellowish orange, or melanic. Forelegs yellowish orange. Midlegs yellowish orange except tibia melanic, or yellowish orange. Hindleg yellowish orange except tibia melanic and tarsus melanic. Forewing hyaline. Stigma melanic. Hind wing hyaline. Metasoma with first and second terga yellowish orange, the rest melanic.

♀.—Unknown.

*Material examined*.—*Holotype*. Dominica W.I.: ♂, Springfield, xi.1967, N.L.H Krauss (UK). *Paratypes*. Dominica W.I.: 2♂, Clarke



Hall, Layou Vall, 10–17.ii.1965, 20–28.ii.1965, H.E.Evans (UK) (USNM); ♂, Mth. Layou R, 13.iii.1965, H.E.Evans (USNM); ♂, Hillsborough, 15.iii.1965 (USNM).

*Distribution*.—This species is known only from the Dominica W. I. in the Caribbean.

*Etymology*.—This species is named after the locality of the holotype specimen.

***Sesioctonus eumenetes* Briceño, sp. n.**

*Diagnosis*.—*S. eumenetes* is known only from one specimen, however, can be distinguished from all other *Sesioctonus* species by the following combination of characters: occipital tubercles absent, presence of median longitudinal carina on the propodeum, epicnemial carina complete, median areola of metanotum smooth and a pair of longitudinal carinae on the first metasomal tergite.

*Description*.—♀. *Length*. Body, 6 mm. *Head*: Flagellum broken after flagellomere 11. Interantennal space with rounded longitudinal keel. Antennal sockets not excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles absent. Occiput excavated. Mandible concave, outer tooth of mandible longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum flat, median longitudinal carina absent. Epicnemial carina sharp, complete, bilobed medially (between forecoxae). Foretibia spines absent. Midtibia with 10 spines. Hind tibia with 15 spines. Hind femur 3.17 times as long as wide. (RS+M) a vein of forewing incomplete. 3RSa vein of forewing present. 2-1A vein of hind wing tubular. CUB vein of hind wing not tubular. Hind wing with 5 hamuli. *Metasoma*:

*ma*: Median tergite of first metasomal segment with pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.09. Ovipositor 6.5 mm. *Color*: Head melanic. Antenna melanic. Maxillary and labial palpomeres melanic. Mesosoma yellowish orange except pronotum mostly yellowish orange, melanic anteriorly and propleuron melanic. Forelegs melanic except coxa mostly yellowish orange and tarsus mostly yellowish orange, but apical tarsomere melanic. Midlegs melanic except coxa yellowish orange. Hindleg melanic except coxa yellowish orange and femur melanic in basal third, otherwise yellowish orange. Forewing entirely infusate. Stigma melanic. Hind wing entirely infusate. Metasoma yellowish orange. Ovipositor yellowish orange except apical eighth melanic.

♂.—Unknown.

*Material examined*.—*Holotype*. Costa Rica: ♀, San Vito Las Cruces, 1200m, 9.vii–7.viii.1982, B. Gill (CNC).

*Distribution*.—This species is known only from the Las Cruces region of Costa Rica.

*Etymology*.—From Greek *eumenetes* that means friend, in honor of my colleagues and friends Ana, Carmen Liceth, Carlos, Dorys and María del Carmen.

***Sesioctonus galeos* Briceño, sp. n.**

*Diagnosis*.—*S. galeos* shows the following combination of characters: occipital tubercles absent, occiput not excavated, maxillary palpi with 4 palpomeres and labial palpi with 3, median areola of metanotum with longitudinal rugosities, epicnemial carina incomplete laterally and straight medially.

*Description*.—♀. *Length*. Body, 8.5 mm. *Head*: Flagellum with 33 flagellomeres. Interantennal space with rounded longitudinal keel, or lacking of longitudinal keel. Antennal sockets deeply excavated, or moderately excavated. Face without me-

dian longitudinal carina. Genae moderately expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible concave, outer tooth of mandible not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. **Mesosoma:** Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum with longitudinal rugosities; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum flat, median longitudinal carina of propodeum absent. Epicnemial carina sharp, incomplete laterally, straight medially (between forecoxae). Foretibia spines absent. Midtibia with 2–7 (2) spines. Hind tibia with 8–12 (12) spines. Hind femur 3.6 times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of forewing present or absent. 2-1A vein of hind wing tubular or not tubular. CUB vein of hind wing not tubular. Hind wing with 4–5 (5) hamuli. **Metasoma:** Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 0.9. Ovipositor 7.2mm. **Color:** Head melanic. Antenna melanic. Maxillary and labial palpomeres yellowish orange. Mesosoma with pronotum yellowish orange, sometimes melanic anteriorly; mesoscutum, scutellum and metanotum yellowish orange; propodeum mostly yellowish orange with melanic spots; propleuron yellowish orange or melanic; mesopleuron mostly yellowish orange, melanic basally and metapleuron melanic, or yellowish orange. Forelegs yellowish orange. Midlegs yellowish orange. Hindleg melanic except trochanter and trochantellus yellowish orange. Forewing banded from base, yellow, infusate, yellow, infusate. Stigma melanic. Hind wing banded from base, yellow, infusate, yellow, infusate. Metasoma mostly yellow-

ish orange but fourth tergum with median tergum melanic and fifth to eighth terga melanic.

♂.—Essentially as female.

**Material examined.**—**Holotype.** Brasil: ♀, Manaus, Reserva Dulce, 31.viii.1990, Trampa malaise, Vidal col. (INPA). **Paratypes.** Peru: ♂, Puerto Bermúdez, 12–19.vii.1920, Cornell Univ. Expedition (CUIC); ♀, Avispas, 30km nr Marcapata, ix.1992, Luis Peña (AEI).

**Distribution.**—*Sesioctonus galeos* is known only from Brazil and Peru.

**Etymology.**—From Greek *galeos* that means shark in honor of Michael Sharkey, in acknowledgment for his advising in my formation as braconid taxonomist and for his contribution to the knowledge of the Agathidinae of the World.

#### *Sesioctonus garciai* Briceño, sp. n.

**Diagnosis.**—*S. garciai* is known only from one specimen and can be distinguished from all other species by the following combination of characters: occipital tubercles present, occiput excavated, epicnemial carina complete and straight medially, although the presence of spines on the fore tibia.

**Description.**—♀. **Length.** Body, excluding ovipositor, 6 mm. **Head:** Flagellum with 30 flagellomeres. Interantennal space with rounded longitudinal keel. Antennal sockets not excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles present. Occiput excavated. Mandible concave, outer tooth of mandible longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. **Mesosoma:** Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum flat, median longitudinal carina of propodeum absent. Epicnemial carina sharp, complete, straight

medially (between forecoxae). Foretibia spines present. Midtibia with 9 spines. Hind tibia with 15 spines. Hind femur 3.64 times as long as wide. (RS+M)a vein of forewing incomplete. 3RSa vein of forewing absent. 2-1A vein of hind wing tubular. CUB vein of hind wing not tubular. Hind wing with 4 hamuli. *Metasoma*: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 0.9. Ovipositor 5 mm. *Color*: Head melanic. Antenna melanic. Maxillary and labial palpomeres yellowish orange except two basal palpomeres melanic. Mesosoma yellowish orange. Forelegs yellowish orange. Midlegs yellowish orange except tibia and tarsus melanic. Hindleg melanic with coxa yellowish orange femur mostly yellowish orange, but melanic distally. Forewing entirely infusate. Stigma melanic. Hind wing entirely infusate. Metasoma tergum yellowish orange except fifth to eighth metasomal terga mostly yellowish orange but median tergites melanic posteriorly. Ovipositor yellowish orange except apical eighth melanic.

♂.—Unknown.

*Material examined*.—*Holotype*. Brasil: ♀, Nova Teutonia, 27°11'N 52°23'L, 2.ii.1939, Fritz Plaumann (CNC).

*Distribution*.—This species is known only from the Nova Teutonia region of Brazil.

*Etymology*.—This species is named in honor of Jose Luis Garcia, venezuelan entomologist, for his contribution to the knowledge of Venezuela proctotrupoids.

*Sesioctonus grandis* Briceño, sp. n.

Figs. 19, 29, 36, 37

*Diagnosis*.—*S. grandis* is the larger species of Genus *Sesioctonus* and it has a higher number of flagellomeres (48), maxilla and labium with four palpomeres, and the first metasomal median tergite with depression posterad spiracle. This latter

character is shared with *S. qui* from which it is separated by the presence of an oval-shape subpronope, epicnemial carina absent and the presence of a pair of lateral longitudinal carinae on the first metasomal median tergite.

*Description*.—♀. *Length*. Body, excluding ovipositor, 10–13 mm (10.0). *Head*: Flagellum with 44–48 flagellomeres (46). Interantennal space with sharp longitudinal keel. Antennal sockets deeply excavated. Face without median longitudinal carina. Genae strongly expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible flat, outer tooth of mandible not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres partly fused. *Mesosoma*: Subpronope oval. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum with longitudinal rugosities; without median longitudinal carina; and lacking lateral carinae. Propodeum convex, median longitudinal carina of propodeum absent. Epicnemial carina completely absent. Foretibia spines absent. Midtibia with 5–8 spines (8). Hind tibia with 14–21 spines (21). Hind femur 4.4 times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of forewing absent. 2-1A vein of hind wing not tubular. CUB vein of hind wing not tubular. Hind wing with 8–10 hamuli (9). *Metasoma*: Median tergite of first metasomal segment with pair of lateral longitudinal carinae. First metasomal median tergite with depression posterad spiracle. Length width ratio of first metasomal median tergite 0.71. Ovipositor 10 mm. *Color*: Head melanic. Antenna melanic, sometimes yellowish orange. Maxillary and labial palpomeres yellowish orange except two basal palpomeres melanic. Mesosoma melanic. Forelegs yellowish orange except coxa melanic, trochantellus, tibia and tarsus yellowish orange, or melanic. Midlegs yellowish orange except coxae and tarsus melanic. Hindleg melanic. Forewing



banded from base, yellow, infusate, yellow, infusate. Stigma melanic, or melanic and yellowish orange. Hind wing yellow basally infusate apically. Metasoma melanic. Ovipositor yellowish orange.

♂.—Essentially as the female.

*Material examined*.—*Holotype*. Brazil: ♀, Rio Grande do Sul, Staudinger K col. (ZSBS). *Paratypes*. Brazil: 4♀, 5♂, Rio Grande do Sul, Staudinger K col. (ZSBS) (UCOB).

*Distribution*.—This species is known only from the Rio Grande do Sul region of Brazil.

*Etymology*.—*grandis* refers the big size of these specimens.

### *Sesioctonus kompsos* Briceño, sp. n.

*Diagnosis*.—*S. kompsos* can be distinguished for the following combination of characters: occipital tubercles present, occiput excavated, median areola of metanotum with longitudinal rugosities.

*Description*.—♀. *Length*. Body, excluding ovipositor, 8.0–10.0mm (10). *Head*: Flagellum with 33–34 (34) flagellomeres. Interantennal space with rounded longitudinal keel. Antennal sockets not excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles present. Occiput excavated. Mandible concave, outer tooth of mandible longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum with longitudinal rugosities; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum flat, median longitudinal carina absent. Epicnemial carina sharp, complete, bilobed medially (between forecoxae). Foretibia spines absent. Midtibia with 9–13 (13) spines. Hind tibia with 21–25 (25) spines. Hind femur 3.2–3.43 (3.2) times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of

forewing absent. 2-1A vein of hind wing tubular. CUB vein of hind wing not tubular. Hind wing with 6 hamuli. *Metasoma*: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 0.94–1.20 (0.94). Ovipositor 8 mm. *Color*: Head melanic. Antenna melanic. Maxillary palpomeres yellowish orange except two basal palpomeres melanic. Labial palpomeres melanic. Mesosoma mostly melanic except metanotum, propodeum and metapleuron yellowish orange. Forelegs melanic. Midlegs melanic. Hindleg melanic. Forewing entirely infusate. Stigma melanic. Hind wing entirely infusate. Metasoma yellowish orange. Ovipositor yellowish orange except apical eighth melanic.

♂.—Unknown.

*Material examined*.—*Holotype*. Costa Rica: ♀, Rancho Quemado, 2km N. camino Drake, 275m, i.1991, P. Hanson (UCR). *Paratype*. Brazil: ♀, Guanabara, Represa Rio Grande, viii.1966, M. Alvarenga (AEI).

*Distribution*.—This species is known only from Costa Rica and Brazil.

*Etymology*.—From Greek *kompsos* that means elegance in reference to the beauty of this species.

### *Sesioctonus miyayensis* Briceño, sp. n.

*Diagnosis*.—*S. miyayensis* shows the following combination of characters: occipital tubercles absent, subpronope elongate-oval-shaped, median areola of metanotum with lateral carinae meeting posteriorly, epicnemial carinae complete and straight medially, foretibia with spines, first metasomal tergite with pair of lateral longitudinal carinae.

*Description*.—♀. *Length*. Body, excluding ovipositor, 5–7 mm (6.5). *Head*: Flagellum with 32 flagellomeres. Interantennal space with rounded longitudinal keel. Antennal sockets not excavated. Face without median longitudinal carina. Genae moderate-



ly expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible flat, outer tooth of mandible not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. **Mesosoma:** Subpronope elongate-oval. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and meeting posteriorly. Propodeum flat, median longitudinal carina absent. Epicnemial carina sharp, complete, straight medially (between forecoxae). Foretibia spines present. Midtibia with 5–7 spines (7). Hind tibia with 14 spines. Hind femur 3.42 times as long as wide. (RS+M)a vein of forewing incomplete. 3RSa vein of forewing absent. 2-1A vein of hind wing tubular. CUb vein of hind wing not tubular. Hind wing with 3–4 hamuli (3). **Metasoma:** Median tergite of first metasomal segment with pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.1. Ovipositor 5 mm. **Color:** Head yellowish orange. Antenna melanic. Maxillary and labial palpomeres melanic, or yellowish orange except two basal palpomeres melanic. Mesosoma yellowish orange. Forelegs yellowish orange except femur and tibia melanic. Midlegs yellowish orange except tibia yellowish orange basally, otherwise melanic and tarsus melanic with basitarsus yellowish orange in basal half. Hindleg yellowish orange except tibia yellowish orange in basal half, melanic apically and tarsus melanic. Forewing yellow basally and infusate apically. Stigma melanic, or yellowish orange. Hind wing yellow basally infusate apically. Metasoma yellowish orange. Ovipositor yellowish orange.

♂.—Unknown.

**Material examined.**—**Holotype.** Costa Rica: ♀, Pto. Viejo, 50m, ii.1980, W. Mason

(AEI). **Paratypes.** Costa Rica: 8♀, Heredia, Est. Biol. La Selva, 10°26'N 84°01'W, 50–150m, xii.1992, P. Hanson (UWY), 1.xi.1993, J. Longino (UK), 01.viii.1995, 15.i.1996, iii.1996, ii.1996, 31.v.1996, 19.ii.1998 (UK); ♀, Prov. Guanacaste, Est. Pitilla 9km S. Sta. Cecilia, 700m, 4–14.xi.1991, D.García (INBio); ♀, Prov. Puntarenas, Rancho Quemado, Península de Osa, 200m, vi.1992. F.Quesada y M.Segura (INBio).

**Distribution.**—This species is known only from Costa Rica.

**Etymology.**—This species is named in honor of my father's birthplace, Miyayi.

### *Sesioctonus parathyridis* Viereck

*Sesioctonus parathyridis* Viereck 1912: 1, ♀, "Paraiso, Canal de Panamá" (Washington, ♀, 14552).—Busk 1912: 10, fig. (host a). Host a: *Parathyridis perspicilla* Stoll.

**Diagnosis.**—*S. parathyridis* shares characters with *S. grandis* and *S. qui*. They conform the group of species with the larger size and the number of flagellomeres more than 40. Also, they have the interantennal space with a longitudinal sharp keel, which is present in *S. acrolophus*. However, *S. parathyridis* can be separated from these species by the presence of a pair of lateral longitudinal carinae on the median tergite of first metasomal segment. This character is shared with *S. grandis*. However, this latter species has the first metasomal segment with a depression posterad spiracle, which are absent in *parathyridis*.

**Description.**—♀. **Length.** Body, excluding ovipositor, 9–12 mm (12.0). **Head:** Flagellum with 44–45 flagellomeres (42). Interantennal space with sharp longitudinal keel. Antennal sockets deeply excavated. Face without median longitudinal carina. Genae strongly expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible flat, outer tooth not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. **Mesosoma:**

Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum with longitudinal rugosities; without median longitudinal carina; and lacking lateral carinae. Propodeum flat, median longitudinal carina absent. Epicnemial carina blunt, incomplete laterally, bilobed medially (between forecoxae). Foretibia spines absent. Midtibia with 5–8 spines (6). Hind tibia with 14–16 spines (14). Hind femur 4.88 times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of forewing present. 2-1A vein of hind wing not tubular. CUB vein of hind wing not tubular. Hind wing with 7–8 hamuli (7). *Metasoma*: Median tergite of first metasomal segment with pair of lateral longitudinal carinae, or without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 0.8. Ovipositor 10–12 mm (12.0). *Color*: Head melanic. Antenna melanic. Maxillary and labial palpomeres yellowish orange except two basal palpomeres melanic. Pronotum mostly melanic with yellowish orange areas. Mesoscutum yellowish orange, or mostly melanic, yellowish orange dorsally. Scutellum yellowish orange. Metanotum yellowish orange. Propodeum yellowish orange, or mostly yellowish orange with melanic spots. Propleuron mostly melanic with yellowish orange areas, or yellowish orange. Mesopleuron yellowish orange. Metapleuron yellowish orange. Forelegs mostly yellowish orange except femur melanic; tibia yellowish orange, or melanic but yellowish orange distally and tarsus mostly yellowish orange, but apical tarsomere melanic. Midlegs mostly yellowish orange with variations on coxa sometimes melanic apically; femur yellowish orange in basal half, melanic apically; tibia yellowish orange in basal half, melanic apically, or yellowish orange and tarsus melanic. Hindleg melanic except coxa yellowish orange in basal half, me-

lanic apically. Forewing banded from base, yellow, infusate, yellow, infusate. Stigma melanic. Hind wing yellow basally infusate apically. Metasoma yellowish orange except the last four segments yellowish orange or melanic. Ovipositor yellowish orange except apical eighth melanic.

♂.—Essentially as the female.

*Material examined*.—*Holotype*. Panama: ♀, Paraíso, Canal de Panama, host: *Parathyris perspicilla* Stoll (USNM). *Another specimens reviewed*. Panama: ♀, Barro Colorado Is., 9°9'N 79°51'W, 2–9.x.1996, J. Pickering (UK); Costa Rica: 2♀, ♂, Prov. Limón, Sector Cerro Cocorí, Finca de E. Rojas, 150m, 26.vi–16.vii.1992, 12–31.viii.1992, ii.1993, E. Rojas (INBio); ♀, Prov. Puntarenas, Est. Sirena, P.N. Corcovado, 0–100m, ii.1992, G. Rodríguez (INBio); ♀, Prov. Puntarenas, Vuelta Campana, R. Terraba, 100–150m, 10–31.viii.1992, S. Rojas (INBio); Peru: Loreto, Pucallpa, 24.vi.1963, J. M. Schunke (BMHN).

*Distribution*.—This species is distributed from Costa Rica and Panamá in Central America to Peru in South America.

*Biology*.—Larvae of *Sesioctonus parathyridis* were reported as parasitoids in larvae of the arctiid *Parathyris perspicilla* (Viereck 1914).

#### *Sesioctonus peruviansis* Briceño, sp. n.

*Diagnosis*.—*S. peruviansis* is known only from one specimen, however, can be distinguished from all other species by the following combination of characters: maxilla with four palpomeres and labium with three, occipital tubercles present, occiput excavated, foretibia with spines. Specimens of *peruviansis* could be confused with *S. garciai* specimens, however they are separated for the presence of epicnemial carinae bilobed in *S. peruviansis*, which is straight in *S. garciai*.

*Description*.—♀. *Length*. Body, excluding ovipositor, 5.5 mm. *Head*: Flagellum with 31 flagellomeres. Interantennal space with rounded longitudinal keel. Antennal sock-

ets moderately excavated. Face without median longitudinal carina. Genae moderately expanded posteroventrally. Occipital tubercles present. Occiput excavated. Mandible concave, outer tooth longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum convex, median longitudinal carina absent. Epicnemial carina sharp, complete, bilobed medially (between forecoxae). Foretibia spines present. Midtibia with 10 spines. Hind tibia with 18 spines. Hind femur 3.27 times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of forewing present. 2-1A vein of hind wing not tubular. CUB vein of hind wing not tubular. Hind wing with 4 hamuli. *Metasoma*: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Ovipositor 5 mm. *Color*: Head melanic. Antenna melanic. Maxillary palpomeres yellowish orange except basal two palpomeres melanic. Labial palpomeres melanic. Mesosoma yellowish orange. Forelegs yellowish orange except trochantellus melanic, femur yellowish orange, melanic basally and tarsus mostly yellowish orange, but apical tarsomere melanic. Midlegs yellowish orange except trochanter, tibia and tarsus melanic. Hind leg mostly melanic except coxa yellowish orange and femur yellowish orange, melanic basally. Forewing infusate with hyaline spots. Stigma melanic. Hind wing entirely infusate. Metasoma yellowish orange. Ovipositor yellowish orange except apical eighth melanic.

♂.—Unknown.

*Material examined*.—*Holotype*. Peru: ♀, Quincemil, 750m near Marcapata, 20-30.x.1962, Luis Peña (AEI).

*Distribution*.—Known only from Marcapata, region of Peru.

*Etymology*.—This species is named after the country of the holotype specimen.

*Sesioctonus qui* Briceño, sp. n.

*Diagnosis*.—*S. qui* is distinguished from all other species for the following combination of characters: occipital tubercles absent, interantennal space with a sharp longitudinal keel, gena strongly expanded posteroventrally, median areola of metanotum with longitudinal rugosities and first metasomal median tergite with depression posterad spiracle.

*Description*.—♀. *Length*. Body, excluding ovipositor, 10–15 mm (10.0). *Head*: Flagellum with 45 flagellomeres. Interantennal space with sharp longitudinal keel. Antennal sockets deeply excavated. Face without median longitudinal carina. Genae strongly expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible flat, outer tooth not longer than inner tooth. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum with longitudinal rugosities; without median longitudinal carina; and lacking lateral carinae. Propodeum convex, median longitudinal carina absent. Epicnemial carina, blunt, incomplete laterally, or completely absent, bilobed medially (between forecoxae). Foretibial spines absent. Midtibia with 5–8 spines (5). Hind tibia with 14–16 spines (14). Hind femur 4.27 times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of forewing absent. 2-1A vein of hind wing tubular. CUB vein of hind wing not tubular. Hind wing with 8 hamuli. *Metasoma*: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite with depression posterad spiracle. Length width ratio of first metasomal median tergite 0.84. Ovipositor



10–12 mm (10.0). *Color*: Head melanic. Antenna melanic. Maxillary and labial palpomeres yellowish orange except basal two palpomeres melanic. Mesosoma yellowish orange. Forelegs yellowish orange. Midlegs yellowish orange. Hindleg melanic except coxa yellowish orange but melanic laterally, hind femur yellowish orange, hind tibia yellowish orange in basal half, melanic apically. Forewing banded from base, yellow, infusate, yellow, infusate. Stigma yellowish orange. Hind wing yellow basally infusate apically. Metasoma yellowish orange with the last four tergites melanic. Ovipositor yellowish orange.

♂.—Male exhibits a color darker than females, showing the body brownish. However, only one male of this specie was examined for this revision and another future observations are necessary.

*Material examined*.—*Holotype*: Venezuela: ♀, Aragua, El Limón, 450m, 25.vi.1978, luz de mercurio, Francisco Fernández Yépez col (MIZA). *Paratypes*. Brasil: 2♀, Sao Paulo, Teodoro Sampaio, xii.1977, F. M. Oliveira (CNC) (BMNH); Peru: ♀, ♂, Loreto, Pucallpa, 19.iv.1962, vi.1965, J. M. Schunke (BMNH).

*Distribution*.—This species is distributed from Venezuela until Brazil and Peru in South America. Its presence in Colombia, Ecuador and Bolivia is probable.

*Etymology*.—The species name *qui* is an arbitrary combination of letters.

*Sesioctonus theskelos* Briceño, sp. n.

*Diagnosis*.—*S. theskelos* can be distinguished for the following characters combination: lacking of occipital tubercles, maxilla with 5 palpomeres and labial with 4, median longitudinal carina of propodeum present, and median tergite of first metasomal segment with pair of lateral longitudinal carinae.

*Description*.—♀. *Length*. Body, excluding ovipositor, 7 mm. *Head*: Flagellum with 35 flagellomeres. Interantennal space with rounded longitudinal keel. Antennal sock-

ets moderately excavated. Face without median longitudinal carina. Genae moderately expanded posteroventrally. Occipital tubercles absent. Occiput not excavated. Mandible concave, outer tooth of mandible not longer than inner tooth. Maxilla with 5 palpomeres. Third and fourth labial palpomeres not fused. *Mesosoma*: Subpronope triangular. Longitudinal carinae of scutellar depression absent. Scutellum convex. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum convex, median longitudinal carina present. Epicnemial carina sharp, complete laterally, bilobed medially (between forecoxae). Foretibia spines absent. Midtibia with 6–9 spines (9). Hind tibia with 12–15 spines (12). Hind femur 3.5 times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of forewing present or absent. 2-1A vein of hind wing tubular or not tubular. CUB vein of hind wing not tubular. Hind wing with 3–4 (4) hamuli. *Metasoma*: Median tergite of first metasomal segment with pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 0.94–1.12 (0.94). Ovipositor 5–6 mm (5.5). *Color*: Head melanic sometimes with a spot yellowish orange on the front. Antenna melanic. Maxillary and labial palpomeres yellowish orange. Mesosoma yellowish orange. Forelegs yellowish orange. Midlegs yellowish orange except tarsus melanic. Hindleg melanic except coxa yellowish orange, or yellowish orange but melanic laterally; and femur yellowish orange, sometimes melanic distally. Forewing entirely infusate. Stigma melanic. Hind wing entirely infusate. Metasoma entirely yellowish orange or yellowish orange with the last four tergites melanic posteriorly. Ovipositor yellowish orange.

♂.—Unknown.

*Material examined*.—*Holotype*. Brasil: ♀,



Matogrosso, Sinop, x.1975, Trampa malaise, M. Alvarenga (CNC). Paratypes. Brasil: ♀, Matogrosso, Sinop, x.1975, Trampa malaise, M. Alvarenga (CNC); Ecuador: ♀, Coca, v.1992, Luis Peña (AEI).

*Distribution*.—This species is known only from Brazil and Ecuador.

*Etymology*.—The species name *theskelos* means wonderful.

*Sesioctonus venezuelensis* Briceño, sp. n.

*Diagnosis*.—*S. venezuelensis* is the only one species that shows five longitudinal carinae on the scutellar depression, in combination with the presence of occipital tubercles and occiput excavate.

*Description*.—♂. *Length*. Body, excluding ovipositor, 8 mm. *Head*: Flagellum with broken after flagellomere 28. Interantennal space with rounded longitudinal keel. Antennal sockets moderately excavated. Face without median longitudinal carina. Genae not expanded posteroventrally. Occipital tubercles present. Occiput excavated. Mandible concave. Maxilla with 4 palpomeres. Third and fourth labial palpomeres completely fused. *Mesosoma*: Subpronope oval. Longitudinal carinae of scutellar depression present. Scutellum flat. Median areola of metanotum smooth; without median longitudinal carina; and with lateral carinae present and not meeting posteriorly. Propodeum flat, median longitudinal carina absent. Epicnemial carina sharp, complete, bilobed medially (between forecoxae). Foretibia spines absent. Midtibia with 7 spines. Hind tibia with 16 spines. Hind femur 3.5 times as long as wide. (RS+M)a vein of forewing complete. 3RSa vein of forewing present. 2-1A vein of hind wing not tubular. CUB vein of hind wing not tubular. Hind wing with 5 hamuli. *Metasoma*: Median tergite of first metasomal segment without pair of lateral longitudinal carinae. First metasomal median tergite without depression posterad spiracle. Length width ratio of first metasomal median tergite 1.28. *Color*: Head melanic. Antenna melanic. Maxil-

lary and labial palpomeres yellowish orange. Mesosoma melanic. Forelegs yellowish orange except coxa melanic. Midlegs yellowish orange except coxa, trochanter and trochantellus melanic. Hindleg melanic except femur melanic but yellowish orange apically. Forewing banded from base, yellow, infusate, yellow, infusate. Stigma melanic. Hind wing banded from base, yellow, infusate, yellow, infusate. Metasoma yellowish orange with third tergum yellowish orange but median tergite melanic in posterior quarter and fourth and fifth tergum melanic.

♀.—Unknown.

*Material examined*.—*Holotype*. Venezuela: ♂, Aragua Est. Exp. Cataurito, 32km E Villa de Cura, 1100m, 28.vi.1983, O. S. Flint, Jr. (CNC).

*Distribution*.—This species is known only from the Aragua region of Venezuela.

*Etymology*.—This species is named after the country of the holotype specimen.

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